

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-1 Please refer to p. 6 of the Company's filing. It states that the Company is pleased to have achieved substantial penetration with its discounted rates. Could the Company describe and quantify that substantial penetration, and specify the period of time when it was produced?

Response: As detailed extensively in D.T.E 01-56 and D.T.E. 01-106, the Company has undertaken a wide range of initiatives to secure available benefits for its valued low-income customers. Such initiatives include promoting the availability of such discount rates, working actively and cooperatively with low-income agencies and advocates and seeking to "bundle" available opportunities for the benefit of low-income customers (e.g. providing relevant conservation programs in coordination with discount rates). As a result of these efforts, the Company has experienced relatively high and rapidly growing participation levels for its discount rates. The following table provides a summary of the number of customers on these discounted rates at the end of December the past 5 years:

	Number of Customers	
	R2	R4
1997	156	2,286
1998	87	2,074
1999	135	2,678
2000	127	2,665
2001	173	3,089

A number of factors have contributed to this achievement of high low income rate participation. First, Berkshire has been active and persistent in terms of making customers aware of the availability of discount rates. A number of specific measures have been applied, including bill inserts, mailings and media advertising. Also, the Company has increased its coordination with groups such as LEAN. Indeed, LEAN has recognized Berkshire as an industry leader in the implementation of rates and services for low income customers. Berkshire has agreed to provide these low-income agencies with special access to portions of its database in order to ensure that customers eligible for special programs (e.g. discount rates or fuel assistance) receive such benefits as quickly as possible. Finally, the lagging economy in the Company's service area and high natural gas commodity prices in the 2000/2001 winter also contributed to higher discount rate participation levels.

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Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-2 Please refer to p. 8 of the Company's filing. One of the Company's primary marketing programs includes the incentives for existing non-heating customers to add central heating to their homes or businesses. The Company states that these marketing efforts have already secured substantial benefits for customers. In this regard, please:

- (a) specify for how long those incentives have been taking place in the Company's service territory;
- (b) quantify those substantial benefits for customers by customer class;
- (c) provide the number of customers, who converted from non-heating to heating by class and their additions of sales or transportation volumes.

Response: (a) The Company has offered rebates or other incentive payments relating to conversions for more than 10 years. Prior to 2000, these rebates were in the form of cash (checks). Since 2000, those who convert are provided a natural gas conversion burner, boiler or furnace at no cost.

(b) Page 8 of the Company's filing states that "[non-heat to heat conversions] have already secured substantial benefits for customers." This marketing program provides benefits primarily to residential non-heating customers since the additional load promotes them to the more favorable heating rate. Additionally, since the existing non-heating customer already maintains a meter and service on its property there are negligible capital expenditure requirements to the Company. The additional margin received from this added load more than offset the incremental operating expenses, making this a viable and beneficial type of investment. The Company believes that the benefits from these programs contributed to the nearly 10-year period between base rate cases for the Company as well as the Company's ability to adopt the Price Cap Mechanism rate plan approved in D.T.E. 01-56.

(c) Since 1997, the Company has converted 1,487 residential non-heating customers to heating. Their combined annual volumes are 84,800 Dth.

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Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-3 How would the Company evaluate its marketing programs? (see p. 8 of the Company's filing). Please, indicate which of the programs have been more successful in terms of increase in the number of customers and increase in sales or transportation volumes.

Response: The success of the Company's marketing plans is a result of tactics to counter the practices of unregulated competitors (e.g., oil). Generally, the Company evaluates the ability of these programs to add customers that pass the requisite cost/benefit analyses. At some times, however, a program may not be achieving substantial customer additions due to adverse market conditions. For example, if natural gas prices are substantially above natural gas prices. The Company may continue marketing programs for a variety of reasons, including the avoidance of the costs associated with deferring and later resuming a program. Although the Company was moderately successful in providing cash rebates for the conversion of heating systems from oil to natural gas, the most successful programs involve providing replacement boilers and furnaces at no cost to the consumer, with the customer paying independent heating contractors for the actual installation of this equipment. These programs have secured substantial and cost-effective customer additions.

The Company's most successful Commercial and Industrial programs have included "energy audits" and cooperation with independent engineering firms to provide turn-key projects for both new construction and conversions of alternate fuel applications. Commercial and Industrial customers are receptive to a greater range of programs if economic opportunities may be demonstrated.

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Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-4 Please refer to p. 13 of the Company's filing. It states that the Company provided eight years of historical monthly sales data for each customer class for the forecast analysis. Please, discuss fully the reason for selecting eight years and not a longer time series to forecast future trends in gas sales.

Response: The Company employed the maximum number of years for which it maintains the detailed historical data sets necessary to perform detailed econometric modeling. The Company provided six years of detailed historical data in its last filing DTE 98-99. The number of years of data was increased to eight in this current proceeding. In future forecasting of gas sales to its customers, Berkshire expects to continue to add more years to its historical sales data (by rate class) to assist in its forecasting planning process.

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Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-5

Please refer to the following regression equations presented in the Company's Supplemental Volume I: Firm Sales Models (see p.12, p.15, p.18, p.22, p.25, p.27, p.31, p.34 and p.37), Throughput Models (see p.40, p.43, p.45, p.47, p.49 and p.50) and Number of Customer Models (see p.41, p.43, p.44, p.46 and p.49). In this regard, please:

- (a) specify the underlying assumption(s) of the method(s) used in the estimation of the equations and explain how the Company tested these assumption(s) to be sure that none are violated. Please, provide evidence to support your answer;
- (b) specify which tests were performed in the regression equations to detect heteroskedasticity. Please, provide evidence in support of your answer;
- (c) if applicable, perform a test for heteroskedasticity for each of the above mentioned models. Please, specify the null and alternative hypotheses, degrees of freedom, number of observations and the critical values.

Response:

a) Several factors systematically influence monthly gas sales. These include weather, economic trends, price of natural gas and seasonal or monthly binary variables to reflect monthly and or seasonal variations in demand. Multiple regression analysis was employed for all use per customer and sales models using ordinary least squares.

The models were corrected for the presence of serial correlation of the residuals, using the Cochrane-Orcutt estimation procedure. Chi-squared test statistics based upon the Lagrange multiplier tests were used to detect serial correction in the error terms. Lagrange multiplier tests are asymptotically equivalent to the more commonly used Wald tests and likelihood ratio tests. The alternative hypothesis is that an error autocorrelation of lag n should be added to the model. Tests are performed for the first 12 lags and the first 2 seasonal lags. Variables were tested based upon their theoretical ability to explain the variation in the dependent variable.

Variables were also selected only when credible forecasts for them could be obtained. Their inclusion in the final model was based upon the overall model goodness of fit as measured by adjusted R-square and each variables performance as measured by its t-statistic and sign. The Bayesian Information Criterion (BIC) was also referred to when deciding between two very similar models, although it was not relied on for final model selection. Models were then reviewed for their performance in forecasting over the most recent history, since this time period is generally more reflective of the short-term forecast period.

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b) No such tests were conducted. Conventional time series analysis does not treat heteroskedasticity as a common problem. Rather, it is generally a concern in models using cross-sectional databases. The software package used for this study, Forecast Pro, which was design by EPRI, does not recognize heteroskedasticity as a problem for time series analysis.

c) See response to part (b) of this question

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Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-6 Please refer to p. 5 of the Company's Supplemental Volume I. It states that economic and demographic indicators (e.g., retail sales, employment, etc) were collected for the forecasting purposes from Pittsfield region. Please, discuss the correspondence of Pittsfield region with the Company's service territory.

Response: At present, the Company serves nearly 35,000 customers. The Pittsfield region is comprised of communities with nearly 27,000 customers, or 77%, of the Company's total customers. At the same time, the Company reviewed economic and demographic data from economy.com for its Greenfield division. After careful consideration, the Company concluded that all of the regions have closely correlated economic and demographic indicators, and it was reasonable to utilize the Pittsfield region for forecasting purposes since it is home to the vast majority of Company's customers.

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Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-7 Please refer to p. 12 of the Company's Supplemental Volume I. Please, discuss the rationale for including the weather variable to explain the residential non-heating use per customer. Is it the residential non-heating use per customer weather sensitive? Please discuss.

Response: The weather variable in this model, while highly statistically significant, has a relatively small coefficient indicating a minimal weather-related variation in usage over the heating season. This can be clearly seen by reviewing the graph of the historical data on page 13.

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DTE 02-17

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-8 Regarding the residential non-heating sales and use per customer (see attachment 2 of the Company's Supplemental Volume I), please:

- (a) discuss why the residential non-heating sales are greater in the non-heating season than in the heating season;
- (b) discuss why the residential non-heating use per customer is greater in the non-heating season than in the heating season.

Response: The statements made in parts (a) and (b) are not true, as shown in the data below:

	<u>ResGenMCF</u>	<u>ResGenUsePerCust</u>
Nov-93	9,738	1.50
Dec-93	11,018	1.70
Jan-94	12,208	1.89
Feb-94	12,268	1.89
Mar-94	12,243	1.88
Apr-94	11,989	1.84
May-94	10,937	1.68
Jun-94	10,417	1.60
Jul-94	9,149	1.41
Aug-94	9,530	1.47
Sep-94	8,546	1.32
Oct-94	9,699	1.50
Nov-94	9,656	1.49
Dec-94	11,398	1.76
Jan-95	11,435	1.77
Feb-95	12,968	2.01
Mar-95	10,588	1.64
Apr-95	11,387	1.77
May-95	10,945	1.70
Jun-95	10,556	1.64
Jul-95	9,442	1.46
Aug-95	8,520	1.32
Sep-95	8,701	1.35

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Oct-95	9,590	1.49
Nov-95	9,012	1.40
Dec-95	12,948	2.02
Jan-96	12,109	1.88
Feb-96	11,255	1.76
Mar-96	11,917	1.86
Apr-96	11,163	1.75
May-96	10,839	1.70
Jun-96	10,898	1.71
Jul-96	8,038	1.25
Aug-96	10,194	1.61
Sep-96	9,528	1.50
Oct-96	8,593	1.35
Nov-96	9,865	1.55
Dec-96	11,542	1.82
Jan-97	12,216	1.93
Feb-97	12,388	1.95
Mar-97	11,034	1.73
Apr-97	11,791	1.85
May-97	10,973	1.72
Jun-97	9,693	1.52
Jul-97	9,382	1.47
Aug-97	8,598	1.35
Sep-97	8,799	1.39
Oct-97	9,228	1.46
Nov-97	10,578	1.69
Dec-97	11,187	1.78
Jan-98	12,426	1.98
Feb-98	12,452	1.99
Mar-98	12,423	1.99
Apr-98	10,236	1.64
May-98	10,542	1.69
Jun-98	10,237	1.65
Jul-98	8,721	1.40
Aug-98	6,864	1.09
Sep-98	8,830	1.40
Oct-98	9,136	1.42
Nov-98	9,935	1.53

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Dec-98	13,238	2.07
Jan-99	14,597	2.29
Feb-99	12,661	1.99
Mar-99	14,200	2.23
Apr-99	14,596	2.29
May-99	10,605	1.66
Jun-99	9,950	1.55
Jul-99	9,073	1.44
Aug-99	7,764	1.22
Sep-99	8,539	1.33
Oct-99	9,244	1.45
Nov-99	10,140	1.58
Dec-99	13,148	2.04
Jan-00	14,652	2.27
Feb-00	13,985	2.17
Mar-00	14,436	2.25
Apr-00	10,914	1.70
May-00	11,703	1.82
Jun-00	10,763	1.68
Jul-00	8,727	1.37
Aug-00	9,054	1.43
Sep-00	8,238	1.30
Oct-00	8,375	1.34
Nov-00	10,802	1.74
Dec-00	12,715	2.04
Jan-01	14,748	2.38
Feb-01	13,933	2.25
Mar-01	14,686	2.38
Apr-01	10,203	1.66
May-01	9,986	1.62
Jun-01	10,634	1.73
Jul-01	8,511	1.39
Aug-01	6,915	1.13
Sep-01	8,179	1.34
Oct-01	7,659	1.25

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-9 Please refer to p. 12 of the Company's Supplemental Volume I. Please, interpret the 12 month autoregressive term. What is the rationale behind that variable?

Response: The selection of the Cochrane-Orcutt autoregressive error term was based upon chi-squared test statistics of correlations in the error terms over time. These terms help identify higher-order autoregressive processes, that cannot be detected by the standard Durbin-Watson test.

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Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-10 Please refer to p. 13 of the Company's Supplemental Volume I. Please explain and clarify the following statement: "the relatively low R-square is not uncommon for classes of customers that are not very weather sensitive."

Response: The weather variable in the use per customer and sales models have a highly significant impact on the overall goodness of fit of the models. The weather variables generally capture the majority of the month-to-month variation in the dependent variable(s) measuring gas sales.

In contrast, the non-heating residential class, which is less weather sensitive than the other residential class, displays less variation that can attributed to weather and hence have a lower overall R-square.

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THE BERKSHIRE GAS COMPANY
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Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-11 Please refer to p. 13 of the Company's Supplemental Volume I. The Company states that the forecast of the number of residential non-heating customers was based on an estimated rate of conversions (8 conversions per month over the 5-year forecast period or equivalently 50% of the rate of decline in non-heat customers over the most recent 20-month period). In this regards,

- (a) discuss why the Company finds that 8 conversions per month are reasonable;
- (b) explain why the estimated rate of conversion is flat over the 5-year forecast period.

Response:

- a) The Company estimates that it will achieve nearly 100 non-heating to heating conversions annually, or approximately 8 conversions per month, over the 5-year forecast period. As stated above, this level of conversion represents nearly 50% of the rate of decline in non-heat customers over the most recent 20-month period. Given the success of the marketing efforts to convert non-heating customers to heating customers during the past few years (see response to DTE 1-2), the Company feels that 100 conversions annually is a reasonable level that can be achieved over the forecast period.
- b) The rate of conversion is flat over the 5-year forecast period because the Company feels that it can maintain such a level each year.

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Question:

D.T.E. 1-12 What can the Company conclude about the decrease in the number of residential non-heating customers together with the decrease in the average use of residential non-heating customers over the forecast period? (See Table G2 of the Company's filing).

Response: As described in the filing, and mentioned in the responses to information requests D.T.E. 1-2 and 1-11, the Company has undertaken substantial marketing efforts to convert non-heating customers to heating customers. During the forecast period, the Company plans to continue these efforts and, as such, the model forecasts a decline in residential non-heating customers. As for the decrease in the average use per residential non-heating customer, the Company can deduce that based upon historical trends, both conservation efforts as well as improved natural gas appliance technologies will continue to play a role in reducing the amount of gas used by these non-heating customers.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-13 Please refer to p. 14 of the Company's filing. The Company states that the small increase in the number of residential heating customers over the forecast period is due to the sluggish economy in the Company's service territory as well as the existence of alternative fuels that customers can choose from. Please discuss how the Company has reached that conclusion using the "additive winter" model to forecast the number of residential heating customers.

Response: The Additive Winter model based forecast is similar (within 0.3% on an average annual growth basis) to the historical data for customer growth. The statements regarding the sluggish economy in the Company's service territory as well as the existence of alternative fuels is equally applicable to the historical data as to the forecast.

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Witness: Michael Marks

Date Filed: August 6, 2002

Question:

- D.T.E. 1-14** The Company states that the “Additive Winters” model was chosen to forecast the number of residential heating customers because that model forecasted a similar seasonal pattern for customer growth as it was exhibited in the historical data (see p. 17 for the Company’s Supplemental Volume I). In this regard,
- (a) please, discuss why the number of residential heating customers is seasonal;
 - (b) please, provide a spreadsheet with the following columns: month (from November 1993 through October 2001), actual number of residential heating customers, backcasted number of residential heating customers, difference between actual and backcasted residential heating customers and finally, a column with the backcasting intervals at 95% confidence level. Does the actual residential heating customers fall into that interval? Please, explain;
 - (c) please, provide a Table with monthly forecasted number of residential heating customers over the 5-year forecast period.

- Response:**
- a) The seasonality is observable as seen by the graph on Page 17. This could be reflective of seasonal housing use, for winter and summer recreation, for example, and turn offs that typically occur in the spring
 - b) The following is the only information that can be produced by the Forecast Pro software in response to this question.

Date	Historic	Fitted

1993-11	20929.000	20988.520
1993-12	21193.000	21186.928
1994-01	21455.000	21374.496
1994-02	21502.000	21451.992
1994-03	21542.000	21481.863
1994-04	21487.000	21554.713
1994-05	21227.000	21409.508
1994-06	21033.000	21217.314
1994-07	20900.000	21000.725
1994-08	20808.000	20856.555
1994-09	20828.000	20823.027

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1994-10	20865.000	20895.732
1994-11	21178.000	21056.377
1994-12	21464.000	21311.486
1995-01	21673.000	21549.549
1995-02	21808.000	21631.197
1995-03	21829.000	21694.664
1995-04	21731.000	21760.975
1995-05	21587.000	21602.939
1995-06	21457.000	21453.078
1995-07	21403.000	21301.994
1995-08	21197.000	21221.330
1995-09	21243.000	21207.625
1995-10	21438.000	21284.098
1995-11	21631.000	21524.965
1995-12	21898.000	21786.402
1996-01	22072.000	22012.414
1996-02	21979.000	22092.404
1996-03	22127.000	22077.713
1996-04	22040.000	22092.209
1996-05	21868.000	21933.279
1996-06	21691.000	21776.734
1996-07	21545.000	21623.900
1996-08	21480.000	21474.109
1996-09	21498.000	21480.324
1996-10	21717.000	21576.428
1996-11	21983.000	21804.898
1996-12	22248.000	22086.070
1997-01	22365.000	22315.207
1997-02	22382.000	22359.324
1997-03	22378.000	22412.248
1997-04	22285.000	22387.000
1997-05	22155.000	22214.047
1997-06	22051.000	22055.945
1997-07	21818.000	21925.840
1997-08	21662.000	21786.896
1997-09	21630.000	21763.598
1997-10	21760.000	21846.504
1997-11	22051.000	22025.000

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1997-12	22340.000	22263.467
1998-01	22479.000	22447.016
1998-02	22527.000	22479.129
1998-03	22570.000	22524.916
1998-04	22387.000	22504.170
1998-05	22231.000	22334.184
1998-06	21977.000	22173.877
1998-07	21850.000	21972.848
1998-08	21921.000	21823.879
1998-09	21842.000	21852.033
1998-10	22192.000	21973.584
1998-11	22493.000	22250.082
1998-12	22328.000	22553.359
1999-01	22371.000	22652.715
1999-02	22427.000	22608.322
1999-03	21360.000	22593.854
1999-04	22854.000	22214.945
1999-05	22782.000	22230.322
1999-06	22719.000	22211.727
1999-07	22204.000	22201.078
1999-08	22199.000	22128.471
1999-09	22528.000	22130.070
1999-10	22402.000	22401.400
1999-11	22749.000	22630.873
1999-12	23093.000	22811.775
2000-01	23351.000	23029.545
2000-02	23358.000	23161.346
2000-03	23462.000	23039.832
2000-04	23269.000	23459.553
2000-05	23186.000	23263.514
2000-06	22969.000	23089.000
2000-07	22754.000	22828.770
2000-08	22805.000	22756.266
2000-09	22835.000	22823.352
2000-10	22827.000	22924.025
2000-11	22934.000	23156.332
2000-12	23289.000	23287.336
2001-01	23579.000	23444.678

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2001-02	23492.000	23505.385
2001-03	23581.000	23375.746
2001-04	23599.000	23618.170
2001-05	23509.000	23486.141
2001-06	23429.000	23327.563
2001-07	23131.000	23131.719
2001-08	22878.000	23102.896
2001-09	22769.000	23094.250
2001-10	22979.000	23087.777

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper

2001-11	22847.170	23290.287	23733.404
2001-12	23062.930	23519.969	23977.008
2002-01	23231.688	23702.238	24172.789
2002-02	23214.973	23698.658	24182.344
2002-03	23117.752	23614.225	24110.697
2002-04	23249.727	23758.666	24267.605
2002-05	23116.268	23637.373	24158.479
2002-06	22953.262	23486.258	24019.254
2002-07	22697.396	23242.023	23786.650
2002-08	22609.918	23165.932	23721.945
2002-09	22624.082	23191.254	23758.426
2002-10	22729.918	23308.033	23886.148
2002-11	22970.295	23559.150	24148.006
2002-12	23189.428	23788.832	24388.236
2003-01	23361.332	23971.102	24580.871
2003-02	23347.561	23967.521	24587.482
2003-03	23253.100	23883.088	24513.076
2003-04	23387.672	24027.529	24667.387
2003-05	23256.658	23906.236	24555.814
2003-06	23095.967	23755.121	24414.275
2003-07	22842.293	23510.887	24179.480
2003-08	22756.893	23434.795	24112.697
2003-09	22773.033	23460.117	24147.201

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2003-10	22880.752	23576.896	24273.041
2003-11	23122.924	23828.014	24533.104
2003-12	23343.773	24057.695	24771.617
2004-01	23517.318	24239.965	24962.611
2004-02	23505.117	24236.385	24967.652
2004-03	23412.166	24151.953	24891.740
2004-04	23548.186	24296.395	25044.604
2004-05	23418.561	24175.100	24931.639
2004-06	23259.207	24023.984	24788.762
2004-07	23006.822	23779.750	24552.678
2004-08	22922.664	23703.658	24484.652
2004-09	22940.004	23728.980	24517.957
2004-10	23048.881	23845.760	24642.639
2004-11	23292.172	24096.877	24901.582
2004-12	23514.104	24326.559	25139.014
2005-01	23688.695	24508.828	25328.961
2005-02	23677.510	24505.248	25332.986
2005-03	23585.541	24420.816	25256.092
2005-04	23722.514	24565.258	25408.002
2005-05	23593.816	24443.963	25294.109
2005-06	23435.361	24292.848	25150.334
2005-07	23183.850	24048.613	24913.377
2005-08	23100.541	23972.521	24844.502
2005-09	23118.705	23997.844	24876.982
2005-10	23228.385	24114.623	25000.861
2005-11	23472.459	24365.740	25259.021
2005-12	23695.152	24595.422	25495.691
2006-01	23870.488	24777.691	25684.895
2006-02	23860.027	24774.111	25688.195
2006-03	23768.766	24689.680	25610.594
2006-04	23906.426	24834.121	25761.816
2006-05	23778.400	24712.826	25647.252
2006-06	23620.604	24561.711	25502.818
2006-07	23369.734	24317.477	25265.219
2006-08	23287.053	24241.385	25195.717
2006-09	23305.830	24266.707	25227.584
2006-10	23416.109	24383.486	25350.863
2006-11	23660.771	24634.604	25608.436

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2006-12	23884.039	24864.285	25844.531
2007-01	24059.936	25046.555	26033.174
2007-02	24050.025	25042.975	26035.924
2007-03	23959.301	24958.543	25957.785
2007-04	24097.492	25102.984	26108.477
2007-05	23969.982	24981.689	25993.396
2007-06	23812.693	24830.574	25848.455
2007-07	23562.320	24586.340	25610.359
2007-08	23480.127	24510.248	25540.369
2007-09	23499.383	24535.570	25571.758
2007-10	23610.133	24652.350	25694.566
2007-11	23855.254	24903.467	25951.680
2007-12	24078.975	25133.148	26187.322
2008-01	24255.316	25315.418	26375.520
2008-02	24245.842	25311.838	26377.834
2008-03	24155.547	25227.406	26299.266
2008-04	24294.158	25371.848	26449.537
2008-05	24167.064	25250.555	26334.045
2008-06	24010.180	25099.438	26188.695
2008-07	23760.207	24855.203	25950.199
2008-08	23678.408	24779.111	25879.814
2008-09	23698.051	24804.434	25910.816
2008-10	23809.180	24921.213	26033.246
2008-11	24054.676	25172.330	26289.984
2008-12	24278.766	25402.012	26525.258
2009-01	24455.469	25584.281	26713.094
2009-02	24446.352	25580.701	26715.051
2009-03	24356.408	25496.270	26636.131
2009-04	24495.365	25640.711	26786.057
2009-05	24368.615	25519.418	26670.221
2009-06	24212.064	25368.301	26524.537
2009-07	23962.424	25124.066	26285.709
2009-08	23880.949	25047.975	26215.000
2009-09	23900.914	25073.297	26245.680
2009-10	24012.359	25190.076	26367.793
2009-11	24258.168	25441.193	26624.219
2009-12	24482.564	25670.875	26859.186
2010-01	24659.572	25853.145	27046.717

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2010-02	24650.754	25849.564	27048.375
2010-03	24561.105	25765.133	26969.160
2010-04	24700.354	25909.574	27118.795
2010-05	24573.889	25788.281	27002.674
2010-06	24417.623	25637.164	26856.705
2010-07	24168.260	25392.930	26617.600
2010-08	24087.063	25316.838	26546.613
2010-09	24107.299	25342.160	26577.021
2010-10	24219.014	25458.939	26698.865
2010-11	24465.088	25710.057	26955.025
2010-12	24689.746	25939.738	27189.730
2011-01	24867.012	26122.008	27377.004
2011-02	24858.449	26118.428	27378.406
2011-03	24769.053	26033.996	27298.939
2011-04	24908.551	26178.438	27448.324
2011-05	24782.332	26057.145	27331.957
2011-06	24626.309	25906.027	27185.746
2011-07	24377.186	25661.793	26946.400
2011-08	24296.225	25585.701	26875.178
2011-09	24316.697	25611.023	26905.350
2011-10	24428.645	25727.803	27026.961
2011-11	24674.945	25978.920	27282.895
2011-12	24899.830	26208.602	27517.373
2012-01	25077.320	26390.871	27704.422
2012-02	25068.979	26387.291	27705.604
2012-03	24979.803	26302.859	27625.916
2012-04	25119.516	26447.301	27775.086
2012-05	24993.512	26326.008	27658.504
2012-06	24837.699	26174.891	27512.082
2012-07	24588.787	25930.656	27272.525
2012-08	24508.033	25854.564	27201.096
2012-09	24528.709	25879.887	27231.064
2012-10	24640.859	25996.666	27352.473
2012-11	24887.361	26247.783	27608.205
2012-12	25112.445	26477.465	27842.484
2013-01	25290.131	26659.734	28029.338
2013-02	25281.982	26656.154	28030.326
2013-03	25192.998	26571.723	27950.447

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c) See response to part (b) above.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks
Date Filed: August 6, 2002

Question:

D.T.E. 1-15 Please refer to p. 17 of the Company's Supplemental Volume I. Please,

- (a) clarify what variable is measured in the vertical axis of the Residential Heating Customer Graph. Is it the number of residential heating customer or the use per customer in Mcf?
- (b) if applicable, present a graph with the number of residential heating customers in the vertical axes and months in the horizontal axes.

Response: The heading on the graph is misnamed. The vertical axis is Residential Customers.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:
D.T.E. 1-16 Please discuss the drop in annual residential heating sales in the years 1994/95, 1997/98 (see p. 7 and p. 18 of the Company's Supplemental Volume I).

Response: As stated in the Company's initial filing, historical data is not weather normalized. Thus, the decline in annual residential heating sales in the years 1994-95 and 1997-98 can be directly attributed to unusually warm weather. In fact, there were 6,642 heating degree-days during the period November 1994 through October 1995 and 6,353 heating degree-days during the period November 1997 through October 1998. These heating degree-day totals represent the warmest and third-warmest 12-month timeframes of the past 20 years.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-17 Please explain the meaning of the column "base use"/customer per Mcf in Table G1 of the Company's filing."

Response: This column represents the approximate annual usage for each Residential Heating customer that is not weather sensitive. This number is calculated by taking the August mcf usage divided by the number of meters multiplied by twelve months.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks
Date Filed: August 6, 2002

Question:

D.T.E. 1-18 Please refer to p. 15 of the Company's Supplemental Volume I. In this regard,

- (a) please explain the role of the variable 12-month autoregressive term in explaining the use per residential heating customers;
- (b) please relate the role played by the 12-month autoregressive term to the explanations given by the Company (DSM programs and elasticity of demand) regarding the slight reduction of the average use per residential heating customer on p. 15 of the Company's filing.

Response: a) See response to D.T.E. 1-9.

b) There is no implied role between the described statements and the use of the autoregressive term.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-19 Please refer to p. 15 of the Company's filing. It states that more recently, the price elasticity of demand appears to have played a role in the declining use per residential heating customer, specifically, during the winter 2000-2001. In this regard, please:

- (a) does the Company have an estimate of the price elasticity of residential demand for gas? Discuss how the elasticity of demand for gas has played a role in the declining use per residential heating customer;
- (b) discuss how "the use per residential heating customer" has actually increased from 2000 to 2001 (See attachment 2 of the Company's Supplement Volume I).

Response:

- a) The Company is not able to precisely measure the price elasticity of residential demand for gas. However, when customer use declines or increases beyond expected levels, the Company often performs an analysis to ascertain the effect of warmer-than-normal or colder-than-normal weather on customer usage patterns. During this period, the Company's analysis concluded that the weather variable was not responsible for such a dramatic decline in usage. Instead, the Company surmised that the reason for the decline was the unprecedented increase in natural gas commodity prices that led to unusually high natural gas bills. The Company believes that these record-setting prices led customers to explore ways to reduce their natural gas consumption.
- b) The use per residential heating customer has actually increased from 2000 to 2001 as temperatures during this period returned to more normal levels than were experienced in the few previous years.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-20 Please refer to the Small Commercial G-41 Class Firm Sales and Throughput Models (see p. 19 and p. 41 for the Company's Supplement Volume I). The Company states that although the retail sales variables had an insignificant t-statistic, they did have the right sign and was left in the model. In this regard,

- (a) discuss the consequences for the validity of the forecast of having insignificant estimates;
- (b) does the Company use the estimates of retail sales variables to forecast average firm sales and throughput use per customer?
- (c) discuss how confident the Company is regarding its forecast when using statistically insignificant estimates.

Response:

a) While the retail sales variable did not satisfy standard statistical evaluation criterion (i.e. t-statistic values), the coefficient did have the correct sign. In theory, this is a relevant variable since retail sales should be a good measure for small commercial customer energy use. To minimize model bias resulting from omitted variables (e.g. retail sales), the variable was kept in the model.

b) Yes it does.

c) Had the variable in question been excluded from the model, it probably would have had a very minimal effect on the forecast. The forecast for this model in particular has an adjusted R-square of over 97% and produces an accurate fit in the later part of the historical data series.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-21 Regarding migration of commercial G-41 customers, please explain why the Company assumes that the migration that occurred through October 2001 (211 customers in total) would continue at about the same rate (35 customers per month) for another four months (see p. 20 of the Company's Supplemental Volume I).

Response: The Company assumed that the migration that occurred for the G-41 customers through October 2001 (211 customers in total) would continue at about the same rate (35 customers per month) for another four months because customers were still seeking price stability after paying unprecedented high prices the previous winter heating season for their natural gas. Suppliers were still offering competitive prices compared with the Company's CGA price of natural gas for the upcoming winter season of 2001-2002 due to the Company's under collection balance. Also, suppliers enrolling customers at the beginning of, and through the middle of the winter season, would be assigned capacity that they could utilize during the winter period to serve their customers. Conversely, capacity assigned to suppliers at the end of the winter season might not be required by the supplier to serve customers for the summer months. The costs associated with that capacity might not be able to be recouped by the supplier without increasing their gas prices. Moreover, the Company expected that its CGA under collection would be addressed with time. Thus, the Company assumed once prices were on parity between the suppliers and the Company, migration would stabilize.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-22 Please refer to Commercial G-41 customers (see p. 41 of the Company's Supplemental Volume I). Discuss the rationale for including the variable "number of total residential customers" in the model.

Response: The number of residential households within a service territory can influence the number of small commercial customers, since the local residential population is the primary customer base for most small commercial businesses. It should also be noted that employment is also used as a driver for the small commercial customer forecast.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-23 Does the Company consider the estimates of the variable “one-month autoregressive term” statistically significant (see p. 43 of the Company’s Supplemental Volume I)? Does the Company use the estimates of the variable to forecast the G42 use per customer throughput? Please, discuss.

Response: The autoregressive term in the G42 use per customer model has a t-statistic of .9475 and is thus within .0025 of being statistically significant. Hence, this variable was used in the forecast.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-24 Regarding migration of commercial G-42 customers, please explain why the Company assumes that the migration that occurred over the first ten months of 2001 would continue at the same rate for another four months (February 2002) after which time it should stabilize (see p. 24 of the Company's Supplemental Volume I).

Response: Please refer to the Company's response to information request DTE 1-21. Specifically, the Company assumed that the migration that occurred over the first ten months of 2001 would continue at the same rate for another four months (February 2002) after which time it should stabilize, because customers were still seeking price stability after paying unprecedented high prices the previous winter heating season for their natural gas. Suppliers were still offering competitive prices compared with the Company's CGA price of natural gas for the upcoming winter season of 2001-2002 due to the Company's under collection balance. Also, suppliers enrolling customers at the beginning of, and through the middle of the winter season, would be assigned capacity that they could utilize during the winter period to serve their customers. Conversely, capacity assigned to suppliers at the end of the winter season might not be required by the supplier to serve customers for the summer months. The costs associated with that capacity might not be able to be recouped by the supplier without increasing their gas prices. Moreover, the Company expected that its CGA under collection would be addressed with time. Thus, the Company assumed once prices were on parity between the suppliers and the Company, migration would stabilize.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-25 Please explain the rationale for including the variable “employment” to explain the number of G-42 commercial customers (see p. 43 of the Company’s Supplemental Volume I).

Response: Employment generally is a significant economic driver for commercial customer growth.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks/Karen Zink

Date Filed: August 6, 2002

Question:

D.T.E. 1-26 Regarding the Small Commercial G-51 Class Firm Sales and Throughput Models (see p. 27 and p. 47 of the Company's Supplemental Volume I). Please,

- (a) discuss the values taken by the binary variable "eventdum" for the unexplained spike in sales in March 99 and February 94;
- (b) explain the origin of the spike in sales in March 99 and February 94;
- (c) discuss how the Company may account for potential future spike in sales.

Response: a) The binary variable has the value of zero in all months except March 99 and Feb 94 where it has the value of 1.

b) As stated in the Company's initial filing, historical data is not weather normalized. Thus, the origin of the spike in sales in both February 94 and March 99 is unusually cold weather. The sales in February 94 are comprised of billing cycles that include usage from January 94. The heating degree-day total for this two-month period was 2,873 as compared to 2,502 the year before (15% warmer) and 2,322 the year after (24% warmer). The sales in March 99 are comprised of billing cycles that include usage from February 99. The two-month heating degree-day total for this period was 1,940 as compared to 1,803 the year before (8% warmer) and 1,823 the year after (6% warmer).

c) As detailed extensively throughout this filing, the Company has developed a flexible gas supply portfolio that allows for the accommodation of spikes in sales as seen in these above-mentioned periods.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-27 Regarding the small commercial G-51 customer model (see p. 46 of the Company's Supplemental Volume I), please:

- (a) explain the rationale for including the variable "number of total residential customers" as an explanatory variable;
- (b) specify in which units the variable "annual trend" is measured.

Response: a) Please refer to the response to D.T.E. 1-22.

b) Values for annual trend are provided below:

Nov-93	1
Dec-93	1
Jan-94	1
Feb-94	1
Mar-94	1
Apr-94	1
May-94	1
Jun-94	1
Jul-94	1
Aug-94	1
Sep-94	1
Oct-94	1
Nov-94	2
Dec-94	2
Jan-95	2
Feb-95	2
Mar-95	2
Apr-95	2
May-95	2
Jun-95	2
Jul-95	2
Aug-95	2
Sep-95	2
Oct-95	2

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Nov-95	3
Dec-95	3
Jan-96	3
Feb-96	3
Mar-96	3
Apr-96	3
May-96	3
Jun-96	3
Jul-96	3
Aug-96	3
Sep-96	3
Oct-96	3
Nov-96	4
Dec-96	4
Jan-97	4
Feb-97	4
Mar-97	4
Apr-97	4
May-97	4
Jun-97	4
Jul-97	4
Aug-97	4
Sep-97	4
Oct-97	4
Nov-97	5
Dec-97	5
Jan-98	5
Feb-98	5
Mar-98	5
Apr-98	5
May-98	5
Jun-98	5
Jul-98	5
Aug-98	5
Sep-98	5
Oct-98	5
Nov-98	6
Dec-98	6

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Jan-99	6
Feb-99	6
Mar-99	6
Apr-99	6
May-99	6
Jun-99	6
Jul-99	6
Aug-99	6
Sep-99	6
Oct-99	6
Nov-99	7
Dec-99	7
Jan-00	7
Feb-00	7
Mar-00	7
Apr-00	7
May-00	7
Jun-00	7
Jul-00	7
Aug-00	7
Sep-00	7
Oct-00	7
Nov-00	8
Dec-00	8
Jan-01	8
Feb-01	8
Mar-01	8
Apr-01	8
May-01	8
Jun-01	8
Jul-01	8
Aug-01	8
Sep-01	8
Oct-01	8
Nov-01	9
Dec-01	9
Jan-02	9
Feb-02	9

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Mar-02	9
Apr-02	9
May-02	9
Jun-02	9
Jul-02	9
Aug-02	9
Sep-02	9
Oct-02	9
Nov-02	10
Dec-02	10
Jan-03	10
Feb-03	10
Mar-03	10
Apr-03	10
May-03	10
Jun-03	10
Jul-03	10
Aug-03	10
Sep-03	10
Oct-03	10
Nov-03	11
Dec-03	11
Jan-04	11
Feb-04	11
Mar-04	11
Apr-04	11
May-04	11
Jun-04	11
Jul-04	11
Aug-04	11
Sep-04	11
Oct-04	11
Nov-04	12
Dec-04	12
Jan-05	12
Feb-05	12
Mar-05	12
Apr-05	12

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May-05	12
Jun-05	12
Jul-05	12
Aug-05	12
Sep-05	12
Oct-05	12
Nov-05	13
Dec-05	13
Jan-06	13
Feb-06	13
Mar-06	13
Apr-06	13
May-06	13
Jun-06	13
Jul-06	13
Aug-06	13
Sep-06	13
Oct-06	13
Nov-06	14
Dec-06	14
Jan-07	14
Feb-07	14
Mar-07	14
Apr-07	14
May-07	14
Jun-07	14
Jul-07	14
Aug-07	14
Sep-07	14
Oct-07	14
Nov-07	15
Dec-07	15
Jan-08	15
Feb-08	15
Mar-08	15
Apr-08	15
May-08	15
Jun-08	15

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Jul-08	15
Aug-08	15
Sep-08	15
Oct-08	15
Nov-08	16
Dec-08	16
Jan-09	16
Feb-09	16
Mar-09	16
Apr-09	16
May-09	16
Jun-09	16
Jul-09	16
Aug-09	16
Sep-09	16
Oct-09	16
Nov-09	17
Dec-09	17
Jan-10	17
Feb-10	17
Mar-10	17
Apr-10	17
May-10	17
Jun-10	17
Jul-10	17
Aug-10	17
Sep-10	17
Oct-10	17
Nov-10	18
Dec-10	18
Jan-11	18
Feb-11	18
Mar-11	18
Apr-11	18
May-11	18
Jun-11	18
Jul-11	18
Aug-11	18

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Sep-11	18
Oct-11	18

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-28 Regarding the migration of commercial G-51 customers, please explain why the Company assumed that the migration that occurred through October 2001 (94 customers) would continue at about the same rate (18 customers per month) for another four months (see p. 30 of the Company's Supplemental Volume I). Also, indicate whether the Company's expectation materialized.

Response: Please refer to the Company's responses to information requests DTE 1-21 and DTE 1-24. Specifically, the Company assumed that the migration that occurred for the G-51 customers through October 2001 (94 customers) would continue at about the same rate (18 customers per month) for another four months because customers were still seeking price stability after paying unprecedented high prices the previous winter heating season for their natural gas. Suppliers were still offering competitive prices compared with the Company's CGA price of natural gas for the upcoming winter season of 2001-2002 due to the Company's under collection balance. Also, suppliers enrolling customers at the beginning of, and through the middle of the winter season, would be assigned capacity that they could utilize during the winter period to serve their customers. Conversely, capacity assigned to suppliers at the end of the winter season might not be required by the supplier to serve customers for the summer months. The costs associated with that capacity might not be able to be recouped by the supplier without increasing their gas prices. Moreover, the Company expected that its CGA under collection would be addressed with time. Thus, the Company assumed once prices were on parity between the suppliers and the Company, migration would stabilize. The Company realized an average gain per month of 10 customers totaling 134 at the end of February 2002.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-29 Please refer to p. 28 of the Company's filing. The Company predicts that the new-to-the-system small commercial and industrial customers, as well as all residential customers, will initially take default service and may, over time, convert to transportation service. Could you please clarify this statement in relation to the predictions of the number of G-41 and G-51 commercial customers migrating to transportation during the forecast period stated on p. 20 and p. 30 of the Company's Supplemental Volume I?

Response: The Company's most recent experience is that the new-to-the-system small commercial and industrial customers, as well as all residential customers, do take default service with the Company. Nearly all transportation customers currently in these groups have migrated to transportation from default service. Customers migrating from default service from these classes as well as the current G42, G43, G52 and G53 customers will make up the transportation volumes associated with capacity forecasted to be assigned each year in the filing.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-30 Please refer to p. 29 of the Company's Supplemental Volume I. It states that the recent decline in the number of firm G-51 sales customers can be attributed to the annual reclassification of customers to the proper load rate as well as the ability of customers to buy gas from a competitive supplier. In this regard:

- (a) specify when the recent decline has taken place;
- (b) present data on the number of firm sales customers reclassified to the proper load rate and data on the number of customers migrated to transportation for the above mentioned recent period.

Response: a) The Company has experienced a significant decline in the number of firm G-51 sales customers since Spring 2001.

b) The Company attributes this reduction in firm sales customers to the introduction of full customer choice rather than the reclassification of customers to the proper load rate. The following table provides the monthly numbers of G51 firm sales and transportation customers:

	G51 Sales	Firm G51 Transportation
Mar-01	890	0
Apr-01	888	1
May-01	889	2
Jun-01	891	31
Jul-01	842	45
Aug-01	830	58
Sep-01	811	73
Oct-01	794	94
Nov-01	779	101
Dec-01	759	125
Jan-02	751	132
Feb-02	749	134
Mar-02	737	149

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Michael Marks/Karen Zink

Date Filed: August 6, 2002

Question:

D.T.E. 1-31 Regarding the Medium Commercial G-52 Class Firm Sales and Throughput Models (see p. 31 and p. 49 of the Company's Supplemental Volume I). Please,

- (a) specify the different values the binary variable "eventdum1" may take;
- (b) explain the origin of the sudden drop in sales on August 98 and August 94;
- (c) discuss how the Company may account for potential future spike in sales;

Response:

- a) The binary variable has the value of zero in all months except Aug 98 and Sept 94 where it has the value of 1.
- b) The origin of the sudden drop in sales in August 98 and August 94 is primarily the Company's reclassification of customers to the proper load rate.
- c) As detailed extensively throughout this filing, the Company has developed a flexible gas supply portfolio that allows for the accommodation of spikes or declines in sales as seen in these above-mentioned periods.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-32 Regarding the migration of commercial G-52 customers, please explain why the Company assumes that the migration that occurred during the first 10 months of 2001 (51 customers) would continue at about the same rate (5 customers per month) for another four months, up to February, 2002 (see p. 33 of the Company's Supplemental Volume I). Also indicate whether the Company's expectation materialized.

Response: Please refer to the Company's responses to information requests DTE 1-21, DTE 1-24 and DTE 1-28. The Company assumed that the migration that occurred for the G-52 customers during the first 10 months of 2001 (51 customers) would continue at about the same rate (5 customers per month) for another four months because customers were still seeking price stability after paying unprecedented high prices the previous winter heating season for their natural gas. Suppliers were still offering competitive prices compared with the Company's CGA price of natural gas for the upcoming winter season of 2001-2002 due to the Company's under collection balance. Also, suppliers enrolling customers at the beginning of, and through the middle of the winter season, would be assigned capacity that they could utilize during the winter period to serve their customers. Conversely, capacity assigned to suppliers at the end of the winter season might not be required by the supplier to serve customers for the summer months. The costs associated with that capacity might not be able to be recouped by the supplier without increasing their gas prices. Moreover, the Company expected that its CGA under collection would be addressed with time. Thus, the Company assumed once prices were on parity between the suppliers and the Company, migration would stabilize. The Company realized an average migration of 6 customers per month by the end of February 2002.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-33 The Company states that the firm C&I G-53 sales customer forecast is one of the independent variables in the G-53 sales model. Could the Company identify the large C&I G-53 variable in the G-53 model (see p. 35 of the Company's Supplemental Volume I)?

Response: The variable labeled G53CUSTOMERS[-1] is G-53 customers lagged one month. The definition given for that variable on Page 35 (1 month lagged dependent variable) is in error and should instead read (1 month lagged G-53 customers).

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-34 Could the Company clarify what it means by: “the low R-square is indicative of the heterogeneity for this class of customers” (see p. 32 of the Company’s Supplemental Volume I).

Response: The customers in this class are likely to include a diverse range of businesses including restaurants, dry cleaners, nursing homes and other such businesses that rely heavily on gas for non-heating purposes such as cooking or water-heating.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-35 Regarding the Ljung-Box test performed on the models (see p. 12 through p. 59 of the Company's Supplemental Volume I), please:

- (a) specify the null hypothesis being tested, degrees of freedom and the conclusions drawn from performing the test (e.g.; reject or fail to reject the null hypothesis) for each model presented by the Company;
- (b) justify the 18 numbers of residual autocorrelations considered in the test.
- (c) discuss how confident the Company is on Ljung-Box test detecting low order residual autocorrelations.

Response: a) This test is reported in the Forecast Pro output, but was not used in model evaluation.

b) See response to Part (a) of this question.

c) See response to Part (a) of this question.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-36 Please refer to p. 28 of the Company's filing. The Company states that it has recently experienced a significant number of transportation customers that are subject to mandatory capacity assignment inquiring as to their ability to return to default service. In this regard, provides:

- (a) a Table containing Reverse Migration (number, volume and customer type) occurred from February 2002 to present;
- (b) forecast of "Reverse" Migration (number, volume and customer type) over the forecasted period.

Response: The Company's recent experience with a significant number of transportation customers that are subject to mandatory capacity assignment inquiring as to their ability to return and returning to default service from February 2002 through June 2002 is provided below:

(a)

Customer Type	Number	Capacity Assigned Volume
Rate R1	2	0 Dth
Rate R3	7	7 Dth
Rate G41	51	183 Dth
Rate G42	9	155 Dth
Rate G51	21	18 Dth
Rate G52	9	91 Dth

- (b) There was no specific number, volume or customer type of reverse migration in the forecast. Rather, any increases were net of initial migrating customers, customers switching between suppliers, reverse migrating customers and customers going out of business.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-37 Please refer to the Table G4A of the Company's filing. Explain how the Company forecast the interruptible sales for the corresponding forecast period.

Response: The Company forecasted its interruptible sales by taking the most recent three year monthly average. The averages were then categorized by season. Berkshire assumed no interruptible usage for the months of December, January and February.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-38(A) Please refer to p. 5 of the Company's filing. It states that the Company added a new town (Sunderland, Massachusetts) to its service territory. In this regard, please indicate whether the gas line extension to Sunderland is finished. And if applicable,

- (a) provide the current number of customers classified by class
- (b) provide the forecast of number of customers and forecasted annual volumes for each of the customers class over the forecast period.

Response:

- (a) To date, 1,850 feet of natural gas main has been installed in Sunderland. The Company plans additional main extensions as potential customers make the decision to convert to natural gas and their added load exceeds the Company's rate of return requirements.
- (b) There are currently four G41 customers in the new service territory.
- (c) The Company estimates the addition of 29 additional customers (four G42 and 25 R3) with a combined annual load of 22,000 Dth over the forecast period.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:
D.T.E. 1-39 How often does the Company plan to monitor and evaluate the forecast results with respect to the actual figures?

Response: The Company monitors and evaluates its forecast results on a monthly basis when it compares actual usage and number of customers to budgeted usage and number of customers. Since the Company's internal budget relies on the forecast, there will be a continual monitoring of the accuracy of the forecast. See also the response to D.T.E. 1-40.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-40 How does the Company plan to forecast sales for each customer class and for every month during the forecast period? That is, is the Company going to keep the parameters fixed for the sample 1993/1994- 2000/2001 while making one-step ahead forecast for every new month? Or is the Company going to reestimate the parameters of the model when a new monthly observation comes in and adjust the forecast containing the new information?

Response: The Company updates its forecast once a year during its annual budget process. The budget will initially be based on the forecast produced in this docket. However, as additional months and years of data occur, the budget forecast will consider that data. For instance, as the 20-year average weather changes, so will the forecast of sales. Additionally, as customer counts change, so will the forecast of customers. Finally, as economic data changes, or there is a loss or gain of significant load due to economic changes, that will be considered in the forecast of sales and customers by rate class.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-41 Please describe the level of training, technical competence, and industry experience of each AEG Applied Energy Group, Inc. staff who was directly involved in the preparation of the econometric model design and forecast results Report.

Response: See attached resume for Mr. Michael Marks. He was the AEG consultant that provided expert consulting services to the Company for this forecast.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-42 Please discuss the discrepancies between the design year planning standard, stated on p. 32 and p. 38 of the Company's filing (8,194) and the same stated on p. 53 of the Company's Supplemental Volume I (8,098).

Response: The referenced difference is due to the utilization of degree days in the months of July and August. The Company assumes that there will be no degree days in those months in a normal year. In order to maintain consistency, the Company relies on this same assumption in a design year. Alternatively, the design year recommendation from the weather study performed by MAC forecasted a minimal number of degree days in July and August.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf
Date Filed: August 6, 2002

Question:

- D.T.E. 1-47** Please explain the following statement: “The Company maintains extremely flexible, least cost peaking resources and therefore is not likely to be altering its resource portfolio in order to respond to slightly different peak conditions” (see p. 33 of the Company’s filing). In addition,
- (a) what does the Company mean by “slightly different peak conditions?”
 - (b) how would the Company have to change its resource portfolio as a result of these slightly different peak conditions?

Response: The Company is referring to its long-term peaking contract with a local cogeneration facility, a combination liquid/vapor LNG contract with DOMAC, a load management arrangement with its largest customer, and its five propane plants. Specifically, the Company has a contract with a local cogeneration facility that allows it to take up to 7,500 dth’s per day during the months of November through March with no associated demand costs. In addition, the contract allows for up to 31,500 dth’s of surge protection in the event of a supply disruption. The DOMAC contract provides Berkshire with vapor service or liquid transported to its Whately LNG facility. This facility provides the Eastern Division of the company’s service territory with a high level of reliability that did not exist before the addition of the Whately facility. The Company’s ratepayers also enjoy the benefit of a load management agreement with its largest customer whereby that customer switches to an alternate fuel while Berkshire takes their gas supply into its distribution system. This supply is an incremental peaking resource with no additional costs to ratepayers. The Company’s five propane plants provide another level of reliability to maintain the integrity of its distribution system. These plants, although seldom used, can be brought into service during a critical period, at minimal cost. Berkshire recognizes that its service territory has experienced several recent winters of warmer than normal temperatures, lowering the most recent twenty and thirty averages the Company uses for planning purposes. Thus, Berkshire would not be likely to make any change to its resource portfolio if its planning standards were reduced slightly because the Company is confident that the flexible least cost peaking resources previously mentioned allow it to provide for its customers without unnecessary demand or incremental costs. The Company is proud of its efforts to implement this flexible and responsive resource plan.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-48 Please provide the probability of occurrence of a design day greater than 76 DD in the forecast plan. Please present evidence in support of your answer.

Response: In this filing the Company continued to rely on the MAC weather study. As stated on page 32 of that report, the study recommended a 75 DD for planning purposes with a 76 DD as a possible contingency. In fact, the probabilistic analysis indicated that a design day of 75 DD was suggested by a 20-year probability and a one-in-30 year standard suggested a design day of 75.7 DD. Berkshire did experience a 76 DD in January of 1994, the coldest day on Company record, and was able to provide reliable service to its customers. In the Department's Order in D.T.E. 98-99, it was stated that:

The Company has developed its design day standard of 75 DD which corresponds to a one-in-20 year probability with a 76 DD being applied for possible contingency analyses. The Department finds that Berkshire has complied with Department precedent in terms of the use of probabilistic analysis.

Accordingly, the Company determined that its design day standard and related contingency analysis remained appropriate for this filing.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-49 Please explain why the Company believes that the selected design standards (see p. 32 of the Company's filing) are appropriate.

Response: Please see response to D.T.E. 1-45.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Michael Marks
Date Filed: August 6, 2002

Question:

- D.T.E. 1-50** Please, refer to p. 55 of the Company's Supplemental Volume I. It states that the first step in the design day analysis was to develop regression models for daily system sendout. In this regard,
- (a) please specify the econometric procedure and software used in the estimation of the daily system sendout models;
 - (b) specify the values taken by the binary weekend variable and binary December and March variables;
 - (c) it states that the March and December monthly binary variables were also tested to account for differences in sensitivity to weather based upon time of year (early winter versus late winter). Please explain why the Company introduced these variables as intercept shifters instead of weather-slope shifters. Is the Company really measuring the sensitivity to weather with those March and December binary variables in the intercept? Please, discuss.
 - (d) specify the test(s) performed in the regression models to detect heteroskedasticity. Please, provide evidence in support of your answer.

- Response:**
- a) Multiple regression models were run in Microsoft Office Excel 2000.
 - b) The December binary variable has the value of zero in all months except December where it equals 1. The March binary variable has the value of zero in all months except March where it equals 1. The Weekend binary variable has the value of zero on all days except Saturday and Sunday when it equals 1.
 - c) The final model specification, which included these two binary variables, performed well in forecasting the highest sendout days in the dataset, which was the sole purpose of these models.
 - d) No such tests were performed.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-51 Please refer to the "Forecast Model for 1997/1998 Daily Sendout" (see p. 55 of the Company's Supplemental Volume I):

- (a) discuss on the sample size of 116 when the model includes daily sendout for the months of December through March.
- (b) the regression equation presents a Durbin-Watson of 0.8389. Does that imply the presence of autocorrelation? If yes, explain the statistical and econometric consequences of the presence of autocorrelation and discuss why the autocorrelation was not corrected with the appropriate econometric technique.
- (c) discuss why the binary variable "December" is kept in the model while its estimate is not statistically significant. Is the Company using that variable in the following steps of the design day analysis? Please, discuss.

Response: a) The last week in March was omitted due to extremely low sendout on those days.

b) The data was sorted by HDD and regressed in that order, not by time, rendering the D-W statistic irrelevant in this regression.

c) The variable was left in the model for consistency purposes. One of the modeling objectives was to use the same model structure for each of the years. The model that was used for the design day analysis included this variable.

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First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-52 Please refer to the "Forecast Model for 1998/1999 Daily Sendout" (see p. 55 of the Company's Supplemental Volume I). Discuss why the binary variable "March" is kept in the model while its estimate is not statistically significant. Is the Company using that variable in the following steps of the design day analysis? Please, discuss.

Response: See response to D.T.E. 1-51 part (c).

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First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-53 Please refer to the "Forecast Model for 1999/2000 Daily Sendout" (see p. 56 of the Company's Supplemental Volume I). Discuss why the binary variables "March", "December" and "Weekendddum" are kept in the model while their estimates are not statistically significant. Is the Company using those variables in the following steps of the design day analysis? Please, discuss.

Response: See response to D.T.E. 1-51 part (c).

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First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-54 Please refer to p. 57 of the Company's Supplemental Volume I. Discuss the rationale for computing the average forecast error (design day adjustment factor) of the daily sendout using only the five coldest days of every year (from 97/98 to 00/01). Does the Company imply that the forecast error is going to be different in case of selecting not the five coldest days but others? Why?

Response: The purpose of the analysis was to estimate the sendout on a 75-degree day. Since no such day existed in the historical dataset, we focused on the regression equations' ability to accurately estimate the coldest days in each year. The number 5 was arbitrarily selected. No implications were made regarding changes in the forecast error with other days in the dataset.

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First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks
Date Filed: August 6, 2002

Question:

D.T.E. 1-55 Please, refer to p. 57 of the Company's Supplemental Volume I. It states that the third step in the design day analysis was to compute the daily sendout corresponding to a 75 HDD design planning standard and applied to it the design day adjustment factor. In this regard, specify the values taken by the binary variables weekends and March and December) when computing the daily sendout for a day with 75 HDD.

Response: The binary variables for Weekend, March and December were set to zero.

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First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Michael Marks

Date Filed: August 6, 2002

Question:

D.T.E. 1-56 Please justify the number of years (1997/98, 1998/99, 1999/00, 2000/01) used in the design day analysis (see p. 57 of the Company's Supplemental Volume I). Why didn't the Company use more years? Please, discuss.

Response: The relationship between weather and sendout can change over time for a variety of reasons. It is also desirable to use more than 1 or 2 years for this analysis. In weighting these two factors, it was deemed reasonable to use the most recent 5 years for this analysis.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-57 How often and by whom, are forecast and supply plans were reviewed prior to their submission to the Department?

Response: The Company begins the preparation of its forecast and supply plan several months prior to the final submission. The Company's filing in this proceeding was initially drafted and reviewed by the resource planning department within the Company, which includes the individuals noted in the response to DTE 1-58, and the Company's attorney. Prior to finalizing the report, it was reviewed by the President of Berkshire Gas, the Manager of Regulatory Affairs for Energy East Corporation, and the Senior Vice President of Transmission and Supply for Energy East Corporation. The Company anticipates following similar procedures for future forecast and resource plan filings.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-60 Please discuss in detail how and to what extent Berkshire's Gas Portfolio Optimization and Gas Sales Purchase Agreements with BP Energy has affected the Company's integrated resource planning process (IRP) and the provision of reliable and least-cost service to its customers.

Response: See the Company's response to DTE 1-59 and DTE 1-61.

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First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-61 Please explain in detail how the Company's integrated resource planning (IRP) has changed since the events of September 11, 2001.

Response: Berkshire, like most companies, realizes the importance of diversity of supply and contingency plans if the Company were to experience a loss of supply. This general goal has not changed since the events of September 11, 2001. The Company believes that new planning issues, however, will emerge or require more substantial consideration as a result of the terrorist attacks on September 11, 2001. For example, the force majeure situation declared by DOMAC as a result of these attacks forced the Company to look for an alternate source to provide liquid LNG service to its Whately facility. Berkshire applied its traditional planning techniques, including its efforts to identify and evaluate alternative sources of LNG. Berkshire was successful in negotiating a replacement supply with an affiliate of another Energy East Company that had supply available at a nearby LNG facility. Berkshire, as a member of the Energy East / BP Alliance, is now provided access to a large pool of assets over a large and varied geographical area that it would not have access to as a stand alone Company. This is of critical importance during a time of potential supply disruption. Accordingly, Berkshire's resource planning has been substantially enhanced due to its affiliation of Energy East Corporation and through the alliance with BP Energy. Please refer to the Company's response to information request DTE 1-59.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-65 Please refer to page 69 of the Company's filing. Please provide a comprehensive analysis of the Company's distribution capacity covering Berkshire's entire distribution system, highlighting, in particular, any areas of concern and how the Company proposes to address them. Please provide a copy of the most recent evaluation report on the Company's distribution system.

Response: The Company operates 3 (three) discontinuous distribution systems in the following areas; 1) North Adams, 2) Pittsfield and 3) Greenfield.

The North Adams system is supplied from 1 (one) sales meter station, which supplies the 22 (twenty-two) different distribution systems in the North Adams area. The estimated peak day sendout for the North Adams sales meter station for the 2002/2003 design day is 11,292 Mcf's.

The Company also operates a propane/air plant at the North Adams sales meter station. The maximum daily delivery limit for this plant is 4,800 Mcf's.

The Company presently has system models in place for all 22 (twenty-two) different distribution systems in the North Adams area. These models are analyzed and updated on a routine basis. Based on the existing model conditions the Company does not anticipate any areas of concern for the North Adams area.

The Pittsfield system is supplied from 3 (three) sales meter stations. They consist of Pittsfield, West Pittsfield and Stockbridge. These 3 (three) sales meter stations supply 21 (twenty-one) different distribution systems in the Pittsfield area. The estimated peak day sendout for the Pittsfield system for the 2002/2003 design day is 29,037 Mcf's.

The Company also operates 2 (two) propane/air plants in the Pittsfield system. They are located at the Pittsfield sales meter station and the Stockbridge sales meter station. The maximum daily capacity of the Pittsfield plant is 5,500 Mcf's and the maximum daily capacity of the Stockbridge plant is 1,400 Mcf's.

The Company also operates a backfeed off of the Altresco feedline, which allows

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THE BERKSHIRE GAS COMPANY
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Berkshire to take up to 7,500 Dth's daily of peaking supply.

In order to supply the design day requirements for the Pittsfield system the following resources would be utilized.

1) Pittsfield sales meter station	-	5,231 Mcf's
2) Pittsfield propane/air plant	-	4,107 Mcf's
3) Altresco backfeed	-	7,331 Mcf's
4) West Pittsfield sales meter station	-	6,453 Mcf's
5) Stockbridge sales meter station -	4,795 Mcf's	
6) Stockbridge propane/air plant	-	1,120 Mcf's
Total		29,037 Mcf's

The Company presently has system models in place for all 21 (twenty-one) different distribution systems in the Pittsfield area. These models are analyzed and updated on a routine basis. Based on the existing model conditions the Company does not anticipate any areas of concern for the Pittsfield area.

The Greenfield system is supplied from 1 (one) sales meter station, which supplies the 11 (eleven) different distribution systems in the Greenfield area. the estimated peak day sendout for the Greenfield area for the 2002/2003 design day is 13,443 Mcf's.

The Company also operates an LNG plant which is located in Whately. The maximum daily capacity for the Whately plant is 3,000 Mcf's.

1) Northampton sales meter station	-	10,443 Mcf's
2) Whately LNG plant	-	3,000 Mcf's
Total		12,905 Mcf's

The Company presently has system models in place for all 11 (eleven) different distribution systems in the Greenfield area. These models are analyzed and updated on a routine basis. Based on existing model conditions the Company will have to upgrade system pressures in the following 2 (two) systems within the next 2-3 years.

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- | | | |
|--------------------------|---|--------------------|
| 1) Turners Falls 40 Psig | - | Upgrade to 60 Psig |
| 2) Amherst 35 Psig | - | Upgrade to 60 Psig |

BERKSHIRE GAS COMPANY DISTRIBUTION SYSTEM 2002

Pittsfield Division:

1. Pittsfield low pressure system*
2. Pittsfield & Dalton 100# system
3. Dalton 60# system
4. Gt. Barrington 60# system
5. Pittsfield 200# system
6. Stockbridge 35# system
7. Stockbridge, Lee, Lenox, and Gt. Barrington 150# system
8. Pittsfield, Lee, and Lenox 40# system
9. Pittsfield, Merrill Rd. 40# system
10. Pittsfield, Eleanor Rd. low pressure system*
11. Pittsfield, Roselyn Dr. low pressure system*
12. Pittsfield, Fasce Pl. 35# system
13. Pittsfield, Berkshire Medical Center 10# system
14. Pittsfield, California Ave and Merrill Rd. 35# system
15. Dalton, Richard Dr. 30# system
16. Pittsfield, Wealthy Ave. 30# system
17. Gt. Barrington, Rte 7 20# system
18. Lee, Devon Rd. 35# system
19. Lee, George St. 40# system
20. Lee, West Park St. 35# system
21. Pittsfield, Tamarak Ave 60# system

North Adams Division:

1. North Adams 100# system
2. North Adams low pressure system*
3. Williamstown low pressure system*
4. North Adams low pressure (Westend, Mass Ave.) system *
5. North Adams (Westend), Williamstown 60# system
6. Adams Renfrew St. 35# system
7. Adams low pressure system #1*

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8. Adams low pressure system #2*
9. North Adams, Adams and Cheshire 60# system
10. North Adams (Carriddi's Car Wash) 15# system
11. North Adams (Doran's Carpets) 20# system
12. North Adams (State St. Overpass) 20# system
13. North Adams (Robinson Ave.) 10# system
14. North Adams (Phoenix Bridge) 30# system
15. North Adams (Barbour St.) 35# system
16. North Adams (Wheel Estates) 30# system
17. Cheshire (Church St.) 30# system
18. Williamstown (Colonial Dr.) 15# system
19. Williamstown (Sand Spring Rd.) low pressure*
20. Adams (Miller St.) 2# system
21. Adams (Brown St.) 20# system

Greenfield Division:

1. Hadley 60# system
2. Hatfield 35# system
3. Whately 40# system
4. Deerfield 55# system
5. Historic Deerfield 30# system
6. Greenfield low pressure system*
7. Greenfield 60# system
8. Turner Falls 40# system
9. Amherst (Old Town) 60# system
10. Amherst (Amitty St.) 35# system
11. Eastern Division 200# system

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-67 Please refer to pages 49 through 52 and pages 61 and 78 of the Company's filing. Please explain the reasons why the Company's supply portfolio does not include supplies from the Sable Island in Eastern Canada, given that Canadian gas "has historically been a least cost supply." Please provide a cost-benefit analysis showing how gas supplies from the Sable Islands compares with the Company's other supplies, domestic and Canadian in terms of supply diversity, reliability and cost.

Response: The Company's portfolio does not include supplies from Sable Island in Eastern Canada due to the timing of the expiration of Berkshire's Tennessee capacity contracts. At the time the Company entered into its current Tennessee capacity contracts (November 1999), supplies from Sable Island were not available. The current Tennessee contracts expire in October 2004. Prior to renewal of these existing contracts, the Company will consider all new pipeline and supply options before making a decision as to from whom and where the capacity and supply should be purchased.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-68 Please discuss how each of the Company's existing and planned contracts compare with similar contracts offered on the Portland Natural Gas Transmission Pipeline, and the Maritimes and Northeast Pipeline in terms of supply diversity, reliability and cost.

Response: An analysis of this magnitude cannot be performed. However, as stated in the response to D.T.E. 1-67, the Company will consider all new pipeline and supply options before making a decision as to from whom and where the capacity and supply should be purchased. Supply diversity, reliability, and cost will all be major considerations in this decision making process.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-69 Please refer to page 64 of the Company's filing. Please explain what the Company means by the statement: "the Company should maintain a resource portfolio that is similar to its current portfolio." In your response, please detail the areas of similarity that the Company is referring to here.

Response: The Company maintains a resource portfolio that has flexible supply, storage and transportation contracts that provide customers with least cost service with a high level of reliability. Similar to existing contracts, Berkshire will require any new contract(s) to provide flexibility in its pricing provisions, operating conditions, contract term and contract MDQ to allow the Company to manage its portfolio as it transitions towards a fully competitive natural gas commodity market.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

- D.T.E. 1-70**
- (a) Please discuss the ways by which the Company continually monitors the market and evaluates resource options to maintain an optimal, least-cost and reliable resource portfolio.
 - (b) Please detail the process by which the Company solicits proposals for incremental and replacement resources.

- Response:**
- (a) The Company monitors the market through its participation in the BP/Energy East Alliance as well as through discussions with representatives from other LDCs in the region, its participation in NEGA, industry conferences, and monitoring energy publications. Further, the Company monitors new supply and pipeline opportunities to ascertain whether any of those opportunities may benefit Berkshire's customers now or in the future.
 - (b) A request for proposals (RFP) is typically issued by the Company when soliciting proposals for incremental and replacement resources. In some instances the Company issues a stand-alone RFP and, in other cases, will issue a joint RFP. For instance, the current gas supply resources were solicited with members of the Mansfield Consortium in the early 1990's. Further, firm spot replacement supply was included as part of the Company's proposal for asset management in 1999. Finally, the replacement of the Company's current gas supply resources were solicited through an RFP.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-71 Please refer to pages 63 and 64 of the Company's filing. Please rank, in order of importance, the various price and non-price factors which the Company takes into consideration when making decisions regarding the replacement of its various gas supply and transportation capacity contracts. Please provide reasons for the rankings.

Response: As stated on page 64 of the filing, the Company will consider pricing parameters, length of contract, operating conditions, and other terms and conditions, when negotiating for replacement of its various gas supply and transportation capacity contracts. First and foremost, the Company will always seek to maintain as much flexibility in its contracts, especially in light of migration. Depending on the circumstances, certain options to consider may be more important in one scenario versus another scenario. However, Berkshire will always seek to balance reliability with other considerations.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf
Date Filed: August 6, 2002

Question:

D.T.E. 1-72 In a tabular form,

- (a) Please provide a total figure, expressed in MMBtus/day, that represents the long-haul capacity the Company is currently entitled to transport from the west (i.e., from Gulf of Mexico);
- (b) Please provide a total figure, expressed in MMBtus/day, that represents the short-haul capacity the Company is currently entitled to transport from the west (i.e., from central Pennsylvania and New York);
- (c) Please provide a total figure, expressed in MMBtus/day, that represents the capacity the Company is currently entitled to transport from Western and Eastern Canada; and
- (d) How does the Company's total contracted pipeline capacity relate to its supply resources.

Response:

Berkshire Assets (Available - 5/31/2001)		Released thru 8/1/02	Remaining Asset (Available 8/1/2002)
<u>Longhaul:</u>			<u>Longhaul:</u>
K 37679 -	14,751	1,726	K 37679 - 13,025
<u>Shorthaul:</u>			<u>Shorthaul:</u>
K 779 -	7,222	1,352	K 779 - 5,870
K 10776 -	3,728	0	K 10776 - 3,728
K 8603 -	3,599	0	K 8603 - 3,599
K 584 -	1,305	120	K 584 - 1,185
<u>Sub. Tot.</u>	30,605	3,198	<u>Sub. Tot.</u> 27,407
<u>Boundary:</u>			<u>Boundary:</u>
K 2063 -	421	Co. Managed	K 2063 - Co. Managed
K 2064 -	636	Co. Managed	K 2064 - Co. Managed

The Company has the capability to match its supply resources to its contracted pipeline capacity through its existing contracts with Aquila, Dynegy, Boundary and BP Energy.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf
Date Filed: August 6, 2002

Question:
D.T.E. 1-73

Please answer the following:

- (a) How many of the Company's existing commodity contracts contain no load loss provisions? Also, please provide this information in terms of units of gas.
- (b) If applicable, please identify in a tabular format the MDQ and the per unit commodity cost for all of the Company's existing commodity supply contracts that have no load loss provisions for each of the next five years.
- (c) In qualitative and quantitative terms and for each of the next five years, please describe the weighted average commodity cost of gas (WACCOG) impact the Company's existing gas purchase contracts (with no load loss provisions) will have on captive firm customers. Within this response, please identify the Company's migration assumptions.

Response:

As discussed on pages 61-63 of the filing, Berkshire has several contracts that will expire within the next six months and had one expire on June 30, 2002. In these contracts the Company has, or had, the capability to nominate gas from zero up to the full MDQ while only paying the commodity cost of the gas and monthly reservation charge. The Company will seek to require any new contract(s) to provide the necessary flexibility in its contract MDQ to allow the Company to manage its portfolio as it transitions towards a fully competitive natural gas commodity market.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-75 Provide a table that indicates, for each supply resource contract, how that contract fits into the Company's efforts to assure supply diversity.

Response: Please see response to D.T.E. 1-74.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E 1-79 Please discuss the recall right provisions imposed by Berkshire Gas for each of the Company's capacity release transactions in the past 5 years, if any.

Response: All capacity releases done on behalf of the Company contained a recall provision that allowed Berkshire to recall the capacity with 24 hours notice.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-80 Please explain whether the Company has conducted any analyses to evaluate the potential financial impact to firm rate payers of capacity release versus magnitude and likelihood of by-pass by its C&I customers?

Response: The Company has not formally conducted any analyses to evaluate the potential financial impact to firm ratepayers of capacity release versus magnitude and likelihood of by-pass by its C&I customers. However, consistent with the Company's recently approved Price Cap Mechanism rate plan, the customers that could likely by-pass the Company's system (large to extra-large classes) can be offered pricing flexibility which might enable the Company to retain those customers on the system. Further, most of the large to extra-large class of customers do not purchase their capacity from the Company, rather, these customers were "grandfathered" from the capacity release provisions since they utilized the services of a marketer prior to February 1999.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

- D.T.E. 1-81** Please respond to the following questions assuming that Massachusetts adopts a capacity assignment regime that is non-mandatory.
- (a) For each of the next five years, please identify the Company's estimated annual cost of un-utilized interstate capacity resulting from firm service migration to transportation.
 - (b) Please discuss how the Company would recover the costs associated with un-utilized interstate capacity resulting from firm service migration to transportation.
 - (c) For each of the next five years, please discuss the Company's estimate of unrecoverable annual interstate pipeline capacity charges. Would the Company propose that these un-recoverable charges be classified as transition costs? Please explain.

- Response:** Assuming that Massachusetts adopts a capacity assignment regime that is non-mandatory:
- (a) The Company's estimated annual cost of unutilized interstate capacity resulting from firm service migration to transportation for each of the next five years is not known. The cost for unutilized firm interstate pipeline capacity currently held by the Company is \$12.89/Dth. Based on the forecast, the Company's total exposure would be approximately \$430,000 per year if 100% were not utilized with an additional \$23,000 added per year over each of the next five years.
 - (b) The Company would recover the costs associated with unutilized interstate capacity resulting from firm service migration to transportation by continuing to negotiate flexible terms in the contracts with its interstate transportation company, Tennessee Gas Pipeline. Should migration occur faster than the Company is able to exercise termination rights in its contracts, it would look to release its firm transportation capacity back to the interstate through their regulated capacity release programs and pass all credits received to its firm rate payers through the Company's CGA.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

- (c) For each of the next five years any unrecoverable annual interstate pipeline capacity charges should be classified as transition costs. Since all contracts the Company has or will enter into would be approved by the Department, prudently incurred costs from unutilized capacity that came about through the Department adopting new rules for transportation should be recoverable by the Company.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: **Jennifer Boucher**

Date Filed: **August 6, 2002**

Question:

D.T.E. 1-82 Please indicate the number of firm sales customers that are dual-fuel capable and the annual volumes associated with these customers.

Response: All of the Company's customers that are dual-fuel capable are served on interruptible rates, or are firm transportation. Thus, no firm sales customers are dual-fuel capable.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-90 Please refer to page 13 of the Company's filing. Please discuss any changes in the Company's DSM programming since the approval of Berkshire's last forecast and supply plan which might affect the load reductions resulting from the implementation of DSM programs in the next five years.

Response: The only substantial change to the Company's DSM programming since the last forecast and supply plan is a slight decrease in its "traditional" programs (i.e. insulation measures, weatherization) and an increase in activity in the area of market transformation(i.e. rebate-structured programs to promote high-efficiency products and technologies). The Department defined market transformation initiatives to mean "strategic efforts to offset market failures and to induce lasting structural or behavioral changes that result in increases in the adoption or penetration of energy efficient technologies or practices." As the Company responds to Department directives and slowly ramps down its traditional programs and makes the transition towards market transformation programs, it may realize lower annual mcf savings as a result. Typically, savings from market transformation programs are lower than those realized through traditional programs. Although "short-term" savings can be lower for market transformation programs, it is important to note that the goal of market transformation programs is to create long-term changes that reap continuous energy efficiency savings at low cost. Electric Industry Restructuring, D.P.U. 96-100, at 67. As noted, the Department has endorsed market-driven energy efficiency initiatives that are designed to take advantage of "market opportunities for more efficient use of energy at a time when it is most practicable and inexpensive to do so, such as during new construction, renovation, equipment replacement or at the time of purchase of new equipment." *Id.*

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-91 Please refer to page 13 of the Company's filing. Please discuss how the Company's projected overall annual growth rate of approximately 1.5 % between 2002 and 2006 compares with Berkshire's historical experience.

Response: Since the Company's historical volumes are not weather-normalized, an accurate comparison of forecasted load growth versus historical load growth cannot be made. However, the forecasted 2.5% increase in number of customers is slightly lower than historical growth over the past 5 years of 3.4%.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-93 Please refer to pages 30 and 31 of the Company's filing. Please discuss the cost implications of the variance between forecasted sendout and actual sendout in the Company's last forecast and supply plan.

Response: Costs associated with the variance between forecasted and actual sendout are minimal. Berkshire's gas supply contracts do not contain "take or pay" provisions that would leave its customers paying for gas it does not take into its distribution system. In fact, the Company has been proactive by continually reevaluating its portfolio and making necessary changes to minimize costs without sacrificing reliability. For example, the Company has terminated a supply contract and a storage contract since its last Forecast and Supply Plan filing. Berkshire ratepayers enjoy significant savings in demand charges as a result of the terminations. In addition, Berkshire elected to "segment" its longhaul transportation contract with Tennessee Gas Pipeline to increase its storage transportation capability and to better match its supply contracts with capacity. This decision also has provided notable savings to the Company's firm ratepayers.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-94 Please refer to page 32 of the Company's filing. Please explain "the changing weather conditions" which the Company took into consideration in developing its planning standards.

Response: The Company is referring to degree days. Employing a rolling twenty year average ensures that current actual degree days are incorporated into the average each year and utilized in the planning process.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-95 Please refer to page 62 of the Company's filing. Please discuss the status of the Company's RFPs for gas supplies.

Response: The Company issued the RFP for replacement gas supplies to 11 parties. Only four responded to the RFP. Three of the four bids were comparably priced, while one was not cost competitive and not considered. After reviewing each of the remaining responses, the Company has selected the bidder it considers to be the most reliable, provides the most flexibility, and has the greatest resources. It is expected a contract will be provided to the Department in August for review.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-96 Please refer to pages 63 and 64 of the Company's filing. Please explain what prevents the Company from seeking more favorable terms and conditions than the existing terms and conditions when negotiating an extension to its contract with DOMAC.

Response: The Company has not begun discussions with DOMAC regarding an extension to its existing contract. As stated on pages 63 and 64 of the filing, the contract expires in October, 2003. Approximately six months before the termination date, or April, 2003, the parties will begin discussions regarding renewal. At that time, the Company will assess whether it can improve upon the terms and conditions in its current agreement with DOMAC. This timing should enable the Company to provide the most appropriate assessment of market opportunities and also provide adequate time for negotiations and regulatory approval.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-97 Please refer to page 66 of the Company's filing. Please explain how certain, in probability terms, the Company is that "there would also be approximately 11,000 Mcf of marketer pipeline gas flowing during a cold snap." In your response, please discuss any contingency plans that the Company has in place to serve customers' needs during a cold snap in case all or some of the 11,000 Mcf of marketer pipeline gas is not realized.

Response: The Company based the estimate of 11,000 Mcf of marketer pipeline gas flowing during a cold snap on a design degree day of 75. The estimate is based on the peakday usage of each customer on that 75 degree day. Assuming each customer's peakday estimate is reasonable, then the probability of being near the 11,000 Mcf figure should be between 95-100%. The contingency plans that the Company would have in place to serve customers needs during a cold snap in case all or some of the 11,000 Mcf of marketer pipeline gas is not realized would include, but not be limited to, utilizing the Altresco surge protection agreement between Berkshire and Pittsfield Generating, using the Company's propane vaporization facilities or increasing the LNG vapor production at the Company's Whately LNG plant.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-98 Please refer to page 66 of the Company's filing. Please explain whether Berkshire had any problems with regard to the timely delivery of marketer pipeline gas in the past five years. In your response, please list the marketers involved, the frequency of non-delivery of gas, the total volumes involved in each occurrence, the effect on service reliability, and how the Company handled each situation.

Response: Berkshire has not had any problems with regard to the timely delivery of marketer pipeline gas in the past five years. All suppliers delivering transportation gas on Berkshires' system have performed well and within the Terms and Conditions in effect at that time. There has not been a problem with non-delivery. Normal imbalances and penalties have occurred for both daily and end of the month volumes that were within the tolerances specified in the terms and conditions and appropriate charges were invoiced.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barshdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-99 Please refer to pages 66 and 67 of the Company's filing. Given the security concerns following the events of September 11, 2001, how certain, in probability terms, is the Company that its truckloads of LNG will be delivered on time. In your response, please discuss any contingency plans that the Company has in place to serve a cold snap in case truckloads of LNG cannot be delivered to the Company on time for security or other reasons.

Response: The Company is highly confident that it will be able to receive LNG deliveries at its Whately facility, either pursuant to its contract with DOMAC or pursuant to other sources. Please refer to page 37 of the filing where the Company discusses its contingency plan in the event that LNG liquid could not be obtained to refill its Whately LNG facility. Please also refer to the Company's response to information request DTE 1-61.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-103 Please refer to pages 80 through 82 of the Company's filing. Please describe, at the plant level, each area of shared use by accounting code in the Company's non-regulated and regulated propane business.

Response: Berkshire Propane Inc. commenced retail propane service as a separate corporation on January 1, 1999 as part of the restructuring to a holding company structure approved by the Department in docket D.T.E. 98-61/87. Consistent with the order, all of the fixed assets necessary to operate the propane business were sold to Berkshire Propane by Berkshire Gas at net book value. These assets included LP tanks at customer locations, vehicles, office equipment and computers and miscellaneous equipment. All transferred assets are no longer reflected on the books of Berkshire Gas. The assets sold did not include certain propane storage facilities that are necessary for utility operations. These facilities are shared by Berkshire Gas Company and Berkshire Propane, Inc. Berkshire Gas charges Berkshire Propane, Inc. a monthly fee for the use of the propane storage facilities. The fee has been set at the rate of \$.01 per gallon of propane sold by Berkshire Propane. For example, during the year 2000 (test year for rate order DTE 01-56) the total fees for storage charged to Berkshire Propane was \$59,307. These fees were credited to Account 735, Production Expenses to reduce utility Cost of Service. The fee was intended to offset the costs of the storage tanks including depreciation, real estate taxes, labor costs to unload LP deliveries and related labor overheads for benefits. A propane storage allocation factor of 95% non-utility and 5% utility was approved in the Company's rate order in DTE 01-56. Based on this review, 95% of the Propane Storage facilities' net book value was removed from rate base in Berkshire's current rate order. Annual costs of owning the Propane Storage facilities were \$63,295, thus Berkshire Gas' share of operating costs was just over \$3,000. Berkshire believes that its utility customers secure a substantial reliability benefit for this nominal cost.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-104 Please refer to pages 80 through 82 of the Company's filing. What accounting techniques does the Company use to ensure that no expenses from the Company's non-regulated propane business are sourced to the regulated utility operation.

Response: The Company formed a Holding Company structure effective January 1, 1999 with Berkshire Energy Resources as the parent corporation and The Berkshire Gas Company and Berkshire Propane, Inc. as separate subsidiaries. Each subsidiary operates from their own building with a separate workforce utilizing their own assets to generate revenues. The propane delivery function is now provided by a separate corporation that owns the assets necessary to operate and maintains separate books of account. Berkshire Gas provides some limited administrative services pursuant to established services agreements and Berkshire Propane is charged for such services consistent with the requirements of the Department's standards of conduct. Specifically, identifiable costs are directly charged to individual accounts set up for each specific non-utility division. These identifiable non-utility charges are below the line and not adjusted for ratemaking purposes. Identifiable charges to affiliated corporations are directly charged to the accounts of the separate corporation. The Company provides these services at a price equal to the Company's fully allocated cost to provide the service per the Department's Standard of Conduct. Costs that are not readily identifiable are charged to the various non-utility operations through cost centers or clearing accounts and then allocated to utility operations, non-utility operations and capital based on allocation factors. These factors are developed by the Company through internal studies and analysis. These procedures were presented and reviewed in the Company's recent base rate proceeding, D.T.E. 01-56.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-105 Please refer to pages 80 through 82 of the Company's filing. Please describe how the Company arranges for the purchase of competitively priced propane. Please supply information that would substantiate that propane purchased for the regulated natural gas business was purchased at rates competitive with the then existing market for propane.

Response: The propane supply contracts that the Company has entered into with three different suppliers are all priced using an OPIS (Oil Price Information Service) index. This index is used a great deal in propane contracting. One contract uses the current OPIS index price on the day of lifting, another contract uses the previous days OPIS index and the last contract prices the supply at the OPIS index on the first and sixteenth calendar day of the month. When Berkshire is required to peak shave using its propane plants, the weighted average cost of the propane in the plants is incorporated into the operational costs to run the facility.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-109 Please refer to page 70 of the Company's filing. Please explain the reasons for the loss of approximately 296,000 Mcf from customers in Berkshire County and 39,500 Mcf from customers in the Greenfield division since Berkshire's last forecast and supply plan was approved. Please explain whether the Company anticipates similar losses in the future on its system and what steps the Company has taken to forestall large load losses in the future.

Response: The Company has experienced a loss of approximately 412,000 Mcf since the last forecast and supply plan was approved. Of this total, one large customer represents 116,000 Mcf of the loss, and the remaining 296,000 Mcf is comprised of 256,500 Mcf from customers in the Pittsfield division and 39,500 Mcf from customers in the Greenfield division. There are several explanations for such a dramatic loss, namely switching to interruptible service, load reductions, closing businesses, and conversions to an alternate fuel. The following table provides the breakdown of the loss by category:

Reason for Loss	Mcf
Load Reductions	(90,900)
Interruptible Service	(127,600)
Alternate Fuel	(16,500)
Closing Business	(61,400)
Total	(296,400)

Since this filing was made, the Company has experienced an additional loss of 78,000 Mcf from 3 large customers that have left the system due to closing businesses. That being said, the Company continues to utilize every available option to maintain firm load on its system. To this end, the Company has designated a key accounts representative whose primary responsibility is to maintain contact with nearly 50 large firm customers. Along with this, as part of the Price Cap Mechanism rate plan approved in D.T.E. 01-56, the Company is now able to offer negotiated pricing to customers with usage greater than 60,000 therms annually. Importantly, the risks of such pricing alternative remain with the Company. Before negotiated pricing was available, the Company had few options when a large customer had a need to reduce its firm gas delivery charges.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-110 Please refer to page 70 of the Company's filing. Please discuss any promotional activities or programs that the Company undertook in the past five years to increase growth on its system. Please discuss how successful these activities or programs were. Please also discuss any promotional activities or programs that the Company plans to undertake in the next five years to increase growth on its system.

Response: The Company had the following promotional activities or programs in the past five years:

1997: For new R3 Customers: \$500 Cash Rebate
R1 to R3 Conversions: \$1000 Cash rebate
1998: Same as 1997
1999: For new R3 Customers: \$500 Cash Rebate
2000: For new R3 customers: Gas conversion burners at no cost
For R1 to R3 Conversions: Gas boiler or furnace at no cost.
2001: For R1 to R3 Conversions and for new R3 customers: Gas boiler or furnace at no cost

During this period, the Company converted 1,487 customers utilizing these programs. Over the forecast period, the Company anticipates offering similar programs and incentives, since it believes its major growth opportunities to be converting existing non-heating customers and increasing market penetration among non-customers along existing gas mains.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness:

Date Filed:

Question:

D.T.E. 1-112 Please refer to page 79 of the Company's filing. Please provide a copy of the analysis, including all worksheets, supporting Berkshire's assertion that "the Company has applied an appropriate and focused resource analysis program to identify practicable alternatives to this resource [DOMAC LNG] and to secure any replacement or renewal contract upon the most favorable terms."

Response: Please refer to the Company's responses to information requests D.T.E. 1-61, 1-96 and 1-99.

**Department of Telecommunications and Energy
First Set of Information Requests**

**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-113 What price does city gate natural gas have to reach in order to make LNG a profitable alternative resource for base-load supplies?

Response: For the one year period ending October 31, 2002, the city gate price for natural gas would have to exceed \$4.55 per dth to make LNG vapor a viable alternative. The commodity price for LNG vapor will be revised for a one year period beginning November 1, 2002 based on the pricing parameters specified in the agreement.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-118 Please refer to pages 79 and 80 of the Company's filing. In the event that the Pittsfield Generation plant is removed from service for any reason, please explain how the Company will replace this peaking supply shortfall. In your response, please indicate the number of times that the Pittsfield Generation plant was removed from service in the past five years and how the Company coped with the situation.

Response: In the event that the Pittsfield Generating plant was taken out of service during a peak period, Berkshire would look at several different alternatives. Initially, the Company would check with its alliance partner, BP Energy, to see if it could deliver incremental supply to Berkshire to make up for the supply deficit. The Company would then consult with the other Energy East LDC's to see if they could provide additional supply to make up for the shortfall. If the EE LDC's did not have additional pipeline supply available, Berkshire may request that the EE LDC's located in zone 6 of Tennessee Gas Pipeline's system use their on system peaking facilities and Berkshire takes a portion of their pipeline gas. The Company could also utilize their five propane peaking plants to make up for any supply deficiency. (Please refer to pages 36 and 37 of the filing for further discussion.) The Pittsfield Generating Plant has not been removed from service, except for scheduled maintenance, during the past five years.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-119 Please refer to page 81 of the Company's filing. How often has the Portable LNG Vaporizer been used in the past five years? Please explain what happens to the Portable LNG Vaporizer after "the Company has gained experience with its new LNG facility."

Response: The portable LNG vaporizer has been used on thirty six "gas days" over the past five years. Most of these dates of operation were prior to the installation of the Company's new LNG facility in Whately. It is expected that the Company may seek to sell the portable LNG vaporizer when greater experience is secured at the Whately LNG facility. The Company does not expect that there will be a substantial market for this equipment. The Company may also maintain the vaporizer as a back-up resource but does not anticipate incurring substantial maintenance costs for such a back-up resource.

Department of Telecommunications and Energy
First Set of Information Requests

THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness:

Date Filed:

Question:

D.T.E. 1-120 Please refer to pages 81 and 82 of the Company's filing. Please quantify the commodity cost savings that the Company secured as a result of the construction of the Whately LNG facility.

Response: Generally, the LNG facility was an attractive resource because of its substantial cost benefits in terms of addressing an identified resource need. The Company demonstrated that the net present value of the 20-year revenue requirement for the LNG facility project alternative was roughly one-third that of the alternative plan of constructing additional pipeline facilities and securing substantial upstream capacity. Berkshire Gas Company, EFSB 99-2/D.T.E. 99-17, pp. 29-30 (1999). Berkshire recognized that LNG typically has a higher commodity cost and included a \$1.00/Dth premium for LNG in its cost analysis. Accordingly, the LNG facility was not constructed to secure "commodity" savings. However, the Company fully recognized the flexibility that results from this facility and has sought to secure commodity benefits whenever available. The principal source of commodity "savings" that have been secured from the LNG facility were derived by the Company's "base-load" dispatch of the plant in the winter of 2000/2001 in the face of higher market prices for pipeline gas. The base load commodity price for LNG was slightly more than \$3 per MMBTU while the first of the month index price for long-haul supplies was, at one point, close to \$10 per MMBTU.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-122 Please refer to page 67 of the Company's filing. The Company states that it "is confident in its ability to serve its customers in an extended cold snap."

- (1) Please explain the difference, if any, between a cold snap and an extended cold snap.
- (2) Please explain whether the Company has had problems serving customers' needs during a cold snap or an extended cold snap in the past 20 years.
- (3) Please provide a statistically derived confidence interval for the Company's "ability to serve its customers in an extended cold snap."

Response: The Company did not intend to imply any difference in terms of cold snap planning standards, but merely to highlight that this planning standard is important because it helps the Company to evaluate the adequacy of its resources over an extended period. The Company has not experienced particular problems in maintaining reliable service during cold snaps in the past 20 years. The Company attributes this factor to the quality and flexibility of its resource plan. The Company has always derived one value in its cold snap analysis and based its conclusion on its ability to serve its customers over such an extreme event on this single value. This approach was used in prior filings and accepted by the Department.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

- D.T.E. 1-124**
- (a) Please provide the dates during the past five years when Berkshire interrupted gas service to any of its firm supply customers.
 - (b) Identify the customer groups that were interrupted, length of service interruption, and provide a rationale for interruption.
 - (c) Identify any interruptible customers and quasi-firm transportation customers that continued to receive gas supplies during these interruptible periods. Also, list the volume of gas taken by each of these customer types during this period on a monthly basis.

Response:

The Company has not interrupted gas service to any of its firm supply customers during the past five years with the exception of rare system improvement occasions. Customers have been provided substantial notice of these improvement activities and, where possible, scheduling accommodations have been made for the benefit of affected customers. The Company is committed to working with customers to mitigate the impact of necessary system maintenance or improvements.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-125 Please refer to page 67 of the Company's filing. Please explain how the outcome of the Department's review of the unbundling initiative as early as November 2003 "will impact the level of migration occurring on the Company's distribution system and could accelerate future migration."

Response: The Company stated that the Department's review of the unbundling initiative in November 2003 will impact the level of migration on the Company's distribution system and could accelerate future migration. If the Department determines the market is competitive and mandatory capacity assignment is no longer necessary, more customers may choose to purchase their gas from a marketer if it is less expensive than purchasing from a utility. If the Department determines the market is not competitive and maintains mandatory capacity assignment, customers may decide to migrate back to the utility if it is less expensive to take service from the utility. Either way, migration would be expected to be affected.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-129 Please identify and discuss those instances, during the last ten years, in which the Company has intervened in FERC proceedings in efforts to reduce the Company's costs. How successful were the Company's interventions on those instances?

Response: The following is a description of the types of proceedings before the Federal Energy Regulatory Commission ("FERC" or "Commission") that The Berkshire Gas Company has participated in over the last ten years as a member of the New England Customer Group or New England LDCs.

Generally, these proceedings fall into two broad categories – generic rulemaking proceedings and pipeline specific proceedings. Berkshire's primary pipeline supplier is Tennessee Gas Pipeline Company ("Tennessee"). Berkshire therefore has actively participated, as a member of the New England group, in many proceedings affecting the rates and services offered by Tennessee.

By participating in a group that generally includes all of the New England local distribution companies, Berkshire has been able to increase its leverage and reduce its litigation costs. In any case concerning Tennessee, for example, the New England group constitutes a significant portion of Tennessee's customer base. By proceeding as a group, the New England LDCs have therefore ensured themselves a seat at the bargaining table.

The following are examples of the types of Tennessee cases that Berkshire has participated in over the last ten years. During this time period, Tennessee filed two major rate increases. In both cases, the New England group was able to negotiate substantial rate reductions as compared to the rate increase that was proposed by Tennessee. In addition, settlements in these cases have permitted the New England LDCs to obtain increased rights to storage services and more flexible transportation and storage service.

Berkshire also actively participated in Tennessee's Order 636 service restructuring case and in the proceedings that resolved Tennessee recovery of transition costs. The restructuring case was of critical importance because it defined the terms and

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conditions of unbundled transportation and storage services. Prior to this proceeding, Berkshire had received a “bundled” sales service from Tennessee. After the proceeding, Berkshire was able to switch to unbundled transportation service and procure more competitive gas supplies from alternative suppliers.

With respect to transition costs, Tennessee filed to recover more than \$1 billion from its customers. Berkshire, as part of the New England group, played a key role in the negotiation of a settlement that substantially reduced Tennessee’s overall recovery. Pursuant to that settlement, Tennessee agreed to absorb the first \$180 million, absorb 23.3% of all costs between \$180 million and \$1,185 million, and absorb 100% of all costs over \$1,185 million.

Berkshire and the New England LDCs also have actively participated in many generic rulemaking proceedings before the FERC. These proceedings have generally addressed service related issues such as the right of first refusal, negotiated rates and negotiated terms and conditions of service, capacity release, and pipeline rate design. The New England group has been substantially successful in many of these areas. For example, despite repeated attempts to eliminate the right of first refusal, this important protection (which allows LDCs to retain their capacity when the contract expires) has been retained.

Most recently, Berkshire has been involved in the generic proceedings that led to the issuance of the FERC’s Order 637 and in the pipeline specific proceedings to implement Order 637. These proceedings have focused on improving the flexibility of the new services that were authorized in Order 636 and on the appropriateness of pipeline tariff provisions concerning penalties and operational flow orders. The Commission’s initial order in the Tennessee proceeding adopted many of the positions advocated by the New England group. That order is pending on rehearing before the Commission.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-130 Regarding the Company's forecast and supply planning process

- (1) Please provide figures showing the number of heating oil customers, and the total gas volumes involved, that the Company successfully converted to gas heating within the past 5 years.
- (2) Also provide figures showing the number of heating oil customers, and the total gas volumes involved, that converted to gas heating by themselves within the past five years.
- (3) Finally, provide figures showing the number of heating oil customers, and the total gas volumes involved, that the Company plans to convert to gas heating within the next 5 years.

Response: (1) The Following table summarizes the number of heating oil customers converted to heating in the past 5 years:

(2)

Year	1997	1998	1999	2000	2001
Conversions from oil	225	181	345	475	252
Annual DTH	19,800	15,928	30,360	41,800	22,176
Cumulative Dth	19,800	35,728	66,088	107,888	130,064

Over the past 5 years, the Company converted 1,848 heating customers. Of this total, 370 customers converted "by themselves" (i.e., not responding to a promotional program). These customers represent nearly 32,560 annual Dth.

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(3) The following table provides the number of heating oil customers the Company expects to convert over the forecast period:

Year	2002	2003	2004	2005	2006
Projected Conversions from oil	200	215	225	230	230
Annual DTH	17,600	18,920	19,800	20,240	20,240
Cumulative Dth	17,600	36,520	56,320	76,560	96,800

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-132 Please quantify what natural gas volumes are assumed to be shifted to third party marketers by customer class of trade for each of the forecast years.

Response: The natural gas volumes assumed to be shifted to third party marketers for each of the forecast years were estimated in total by customer load factors. Of the block of 200 Dth of capacity estimated to be released per year, approximately 73% comes from Low Load Factor customers (includes Residential Heating, Commercial and Industrial G41, 42 and 43 classes) and the remaining 27% made up from High Load Factor customers (includes Residential Non-Heating, Commercial and Industrial G51, G52 and G53 classes).

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Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-133 Please discuss the circumstances under which the Company will enter into multi-year supply contracts during the five year forecast period.

Response: The Company typically seeks proposals for supply contracts based upon competitive solicitations. Such RFP's generally seek to advance the Company's portfolio objectives. The Company will enter into multi-year supply contracts during the forecast period if the analysis shows the contract is more beneficial with a multiple year term. The Company expects that this conclusion could be based upon a variety of factors, both price and non-price. The Company would expect to demonstrate the basis for any conclusion in any filing with the Department.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-134 Please indicate whether the Company has considered purchasing surplus gas from another LDC, including other East Energy Companies, during the five year forecast period.

Response: The Company will consider all sources of gas supply that will allow it to serve its customers with reliable least cost gas. Purchasing least cost gas from other Energy East Companies through the Energy East / BP Energy Alliance or through one of the individual companies will be supply sources that Berkshire expects to consider for the benefit of its customers.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E.1-135 Please identify and comment on all major factors which could develop during the forecast period that could materially affect natural gas availability, reliability or costs.

Response: As was seen in the 2000-2001 period, natural gas prices were greatly affected by reduced production and colder temperatures, as well as possible manipulation of the market. Berkshire has little, if any, control over these circumstances. However, by maintaining a flexible, reliable portfolio, and in conjunction with the Company's participation in the BP Energy East alliance, customers can be assured they will receive reliable, least-cost gas supply from the Company consistent with our portfolio objectives.

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DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-139 Please describe how the Company ensures that it continually evaluates resource options that are available on the market. Please describe the evaluation process.

Response: Berkshire generally evaluates resource options through a Request for Proposal (RFP) process. The Company will pursue this process whenever an appropriate resource requirement arises. The evaluation process consists of: developing and issuing a robust, targeted RFP, reviewing all responses, creating a short list of candidates, meeting with respondents, assessing pricing and operational considerations and compliance to the RFP requirements. The Company will also seek appropriate references to assure the performance ability of the respondent. Currently, the Company is in the process of reviewing responses to an RFP issued to replace firm supply contracts that will be expiring in the fall of 2002, consistent with the Department's directives in D.T.E. 01-41.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-140 Please discuss the supplier services that Berkshire currently provides to third-party marketers in its service territory. Does the Company anticipate any changes to these services in the next five years? If the answer is in the affirmative, please discuss how the Company anticipates to meet these changes.

Response: The supplier services that Berkshire currently provides to third-party marketers in its service territory include:

- ?? EDI (Electronic Data Interchange) provides seamless exchange of customer information including twelve month usage history, TCQ (Total Capacity Quantity) and rate classification as well as processes including customer signup, termination and passthrough billing.
- ?? Aggregation service for marketers' daily metered and non-daily metered customer pools. Provide daily balancing for non-daily metered customer pools and track daily imbalance volumes and corresponding charges to marketers for their daily metered customer pools.
- ?? Manage capacity release, storage transfers, company supply and peaking service for marketers receiving mandatory capacity on behalf of their customers and issue monthly invoices for these services to marketers.

Absent substantial regulatory change, the Company expects that it will adapt these services to reflect potential procedural enhancements. The Company will continue to work with marketers to develop procedures for related services.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-141 Please refer to page 41 of the Company's filing. Please explain in depth the origin and function of the "Gas Supply Dispatch Optimization Model."

Response: The development of the Gas Supply Dispatch Optimization Model came about as a result of FERC Order 636. Berkshire hired Management Applications Consulting, Inc. to create a model that would allow the Company to evaluate supply and storage resources and incorporate the variables of each supply to optimize dispatch. Some of the variables include: pricing parameters, maximum daily quantities, seasonal limitations, storage refill parameters, normal or design year dispatch and inclusion of interruptible load. The model was originally created using Lotus software. Since that time the model has been converted to Quatro Pro and more recently, Excel. The Company has relied heavily on the results of the Dispatch Model in its planning, budgeting and forecasting process and is pleased with its performance.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-142 Please provide a narrative for the Supplementary Materials, Volumes III and IV.

Response: Volumes III and IV of the Supplementary Materials contain the reports produced by the Gas Supply Dispatch Optimization Model. Specifically, the reporting contains gas dispatch volumes and related costs for five split years of normal and design weather. Volume III includes normal weather and Volume IV includes design weather. The first year begins in November, 2001 and ends October, 2002. The last year begins November, 2005 and ends October, 2006.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: William Barschdorf

Date Filed: August 6, 2002

Question:

D.T.E. 1-143 Please indicate how much spot gas the Company has purchased over the past five years and in what season. Please list the areas of production and the marketers for those purchases.

Response: Please refer to Table G24 in the forecast filing.

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**THE BERKSHIRE GAS COMPANY
DTE 02-17**

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-145 Please provide a list of customers participating in the Load Management Rate. Also provide the predetermined therm use reduction for each customer.

Response: Presently, the Company has one customer participating in the Load Management Rate. This customer's predetermined use reduction is 14,000 therms per day.

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THE BERKSHIRE GAS COMPANY
DTE 02-17

Witness: Karen Zink
Date Filed: August 6, 2002

Question:

D.T.E. 1-146 How does the Company foresee the effects of customer migration and reverse migration by class during the forecast period? Does this forecast correspond to past experience for each class?

Response: As stated in response to D.T.E 1-36 (b), reverse migration is not specifically stated in the forecast. Rather, forecasts were present net of initial migrating customers, customers switching between suppliers, reverse migrating customers and customers going out of business. Also, as stated in response to D.T.E 1-132, the natural gas volumes assumed to be shifted to third party marketers for each of the forecast years were estimated in total by customer load factors. Of the block of 200 Dth of capacity estimated to be released per year, approximately 73% comes from Low Load Factor customers (includes Residential Heating, Commercial and Industrial G41, 42 and 43 classes) and the remaining 27% made up from High Load Factor customers (includes Residential Non-Heating, Commercial and Industrial G51, G52 and G53 classes). Since the Company had no prior experience with reverse migration, forecasting net migration increases using total Low Load Factor customer percentages and total High Load Factor customer percentages does correspond to the past experience of the Company.

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